



MODULE 2: PRACTICAL CONSIDERATIONS FOR MAKING NON-DETRIMENT FINDINGS

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1. What is in this module?

This module offers information on the “How to” of NDF making. Specifically, it adds to the principles for making NDFs by looking at practical considerations in making NDFs, including in circumstances of low risk, low data, or low capacity. It also provides relevant schemes practical criteria, and examples to put the principles for making NDFs into practice. Note this module is provided as guidance – it is not legally binding on Parties and it is not intended to be prescriptive. Parties may already be using other approaches to making non-detriment findings and nothing in this guidance suggests ceasing the continued use of those. However, there may be additional approaches within the module that Parties might wish to use. Furthermore, this guidance is intended to be flexible, and Parties may wish to adapt them for their own circumstances.

2. How to make a non-detriment finding

There are various ways a Scientific Authority (SA) can make non-detriment findings, but the [Res. Conf. 16.7 \(Rev. CoP17\)](#) on *Non-detriment findings* does recommend that the NDF is “based on resource assessment methodologies which may include, but are not limited to, consideration of:

- A. species biology and life-history characteristics;*
- B. species range (historical and current);*
- C. population structure, status and trends (in the harvested area, nationally and internationally);*
- D. threats;*
- E. historical and current species-specific levels and patterns of harvest and mortality (e.g., age, sex) from all sources combined;*
- F. management measures currently in place and proposed, including adaptive management strategies and consideration of levels of compliance;*
- G. population monitoring; and*
- H. conservation status;”*

The Resolution affirms that *the best available scientific information is the basis for non-detriment findings*. It is not expected that it is the role of the Scientific Authority to conduct additional studies or further surveys where there are knowledge gaps (see [module 1 sections 7.1 and 8.](#)).

Three further recommendations in the Resolution are key to making NDFs:

1. *the making of an effective non-detriment finding relies upon a correct identification of the species concerned and verification that it is specimens of this species that are to be exported* (paragraph 1.a)v);
2. *in making a non-detriment finding, Scientific Authorities should consider the volume of legal and illegal trade (known, inferred, projected, estimated) relative to the vulnerability of the species (intrinsic and extrinsic factors that increase the risk of extinction of the species)* (paragraph 1.a)iii); and
3. *the implementation of adaptive management, including monitoring, is an important consideration in the making of a non-detriment finding* (paragraph 1(a)viii)).

There is no requirement for NDFs to be made publicly available, although Parties are encouraged to share their NDFs via a dedicated area of the [CITES NDF database](#). Sharing NDFs and the process by which findings are made may help all Parties effectively implement the NDF requirement and improve transparency for this fundamental CITES process. Where there are concerns with levels of trade for a particular species identified through the Review of Significant Trade ([Res. Conf. 12.8 \(Rev. CoP18\)](#)), Parties are asked to provide information to the Secretariat and the relevant Committee on how they have assessed trade to be non-detrimental.

2.1. Geographical focus of assessment

NDFs can be made on a case-by-case basis or for a species for part of, or all of, the country's population for a defined time-period. This will determine what information is required and the geographical focus of the assessment.

Understanding the sustainability of harvest should primarily focus on the harvest site and extraction from that site. If this is sustainable/non-detrimental then harvest and trade is unlikely to have a negative impact on other parts of the species' range within or beyond the country. However, harvest area should be considered in relation to the species and its harvest nationally within the country undertaking the NDF, and internationally across all range States. A seemingly sustainable harvest from one area may be acting as a sink for the species from other areas. NDFs for harvest of migratory species should ensure that harvest from the area in question does not impact negatively on other parts of the species' range, including in other jurisdictions. See [module 1 section 6.](#) on impact on role in the ecosystem, [module 6](#) on migratory species and transboundary populations, and [module 5 section 3.9](#) on areas beyond national jurisdiction (ABNJ) and Introduction from the Sea (IFS) in [module 5](#) for further detail.

Often, Scientific Authorities make a species-specific non-detriment finding for the whole country - which should take into account all harvest areas and the overall distribution of the species in that country. Harvest is generally assessed at the local level and, where determined to be non-detrimental, quotas can be set at a local scale. These local (or subnational) quotas are often combined to produce a national level annual quota (to be allocated for determined periods, as far as possible throughout a calendar year; see [Res. Conf. 14.7](#) (Rev. CoP15). For instance, timber export quotas may be derived from aggregating harvest and processing figures from concessions throughout the country where harvests from each concession have been assessed as being non-detrimental. See [section 2.3](#).

Harvest for export should also be considered with offtake for domestic use at the site and in other parts of the species' range at the national level, as well as in relation to the entire species' range (in line with [Res. Conf. 16.7 paragraph 1 a ix C](#)). Ideally, non-harvest related mortality/loss (natural mortality, climate change, land conversion, etc.) should also be taken into account when determining sustainability of harvest.

It is important to understand the harvest and reasons for harvest within the context of the species' population and management more widely; for instance, the species may be deliberately removed locally

(e.g., where there are instances of human wildlife conflict), but the species population within the country overall remains healthy.

2.2. Frequency of making NDFs

How often a Scientific Authority needs to make an NDF will depend on the specific characteristics of the species and trade involved, as well as the monitoring systems in place. The frequency of making an NDF may change over time with increasing confidence in the harvest and management. Some NDFs are developed and reviewed on a regular basis, while others are developed on a case-by-case basis when a CITES permit is requested.

A Party may decide that a certain amount of harvest annually will be non-detrimental (based on consideration of parameters in the generic framework below). This may be formalised in an annual quota, nationally or by area. In this case, offtake up to the annual quota and export from the harvest can be allowed without having to make a new NDF for each application. Similarly, for specific harvest areas or concessions, managers may have calculated annual sustainable offtakes that are detailed in management plans. If the Scientific Authority concurs with the non-detrimental assessment of the proposed offtake, it may only be necessary to make this finding once a year, but to track exports from the area and ensure that harvest is not being exceeded. If the NDF is not made on a case-by-case basis it may be necessary for the Scientific Authority to pay attention to external factors (i.e., climatic) or unusual levels of illegal harvest/trade that may impact on the sustainability of the harvest.

For exports of artificially propagated or captive produced specimens (see [section 4.7](#) on source codes below), a one-off NDF for the acquisition of the founder stock for a facility is necessary, unless further wild harvest augments the breeding stock, in which case NDFs for the stock introduced from the wild will be necessary. However, monitoring should be in place to ensure that no specimens from the wild are being laundered through these facilities.

2.3. NDFs and Export Quotas

As noted in [Res. Conf. 14.7 \(Rev. CoP15\) Management of nationally established export quotas](#), an export quota system is a management tool, used to ensure that exports of a certain species are maintained at a level that has no detrimental effect on the population of the species. When export quotas are established, they should be set as a result of a non-detriment finding by a Scientific Authority, in accordance with Article III, paragraph 2 (a), or Article IV, paragraph 2 (a), of the Convention, and should ensure that the species is maintained throughout its range at a level consistent with its role in the ecosystems in which it occurs, in accordance with Article IV, paragraph 3. A well-implemented export quota system eliminates the need for an NDF for each individual shipment of CITES specimens, provides a basis for monitoring the trade and may facilitate the issuance of export permits. The fundamental principle to follow is that decision-making regarding the level of sustainable exports must be scientifically based, and harvests managed in the most appropriate manner. Export quotas for wild-taken specimens should be set at a level that takes into account the number or quantity of specimens that are taken from the wild legally and illegally, whether for export or domestic use. In accordance with [Res. 14.7 \(Rev. CoP15\)](#), "an NDF should be made whenever an export quota is established for the first time or revised, and reviewed annually".

[Res. Conf. 14.7 \(Rev. CoP15\)](#) outlines the conditions relating to the establishment of national export quotas. This Resolution recommends:

- where possible export quota should cover a calendar year;
- when quotas are established, they **should be set as a result of a non-detriment finding** by a Scientific Authority;
- export quotas should be set on a level that takes into account the number or quantity of specimens that are taken from the wild legally or illegally;
- export quotas are usually established for specimens of wild source;

- export quotas are usually established for specific number or quantity of animals or plants; but may be set for certain types of parts or derivatives- for example (e.g. elephant tusks, caviar, skins, bark, sawn wood, bulbs);
- names used should follow CITES standard nomenclature;
- terms used should follow those in the [Guidelines for the preparation and submission of CITES annual reports](#);
- Parties should inform the CITES Secretariat of nationally established export quotas and updates and indicate the period to which the quota applies;
- every Party is responsible for monitoring their export quotas and ensuring that they are not exceeded. Data should be maintained on the number or quantity of specimens actually exported.

3. A generic framework for making NDFs

This framework, and the guidance provided, is intentionally generic. This guidance needs to be useful to many Parties, each with different situations and limitations. The generic framework is intended as a starting point and different emphasis may be placed on different parts of the assessment.

Different Parties will have different tolerances to risk. It is highly unlikely that any Party will have “perfect” information on which to make their decisions. Where there is uncertainty, it is recommended to be precautionary (see [module 1 section 4](#) on the Precautionary Approach). Scientific Authorities should consider working through the NDF framework even when the NDF is likely to be negative. Doing so helps in communicating the decision to stakeholders. It also helps Authorities and stakeholders understand what is needed to move toward sustainable exports in the future and improve species management. The diagram below illustrates the steps that can be taken to complete the NDF Framework (see [Fig. 2A](#) and [Table 2A](#)).

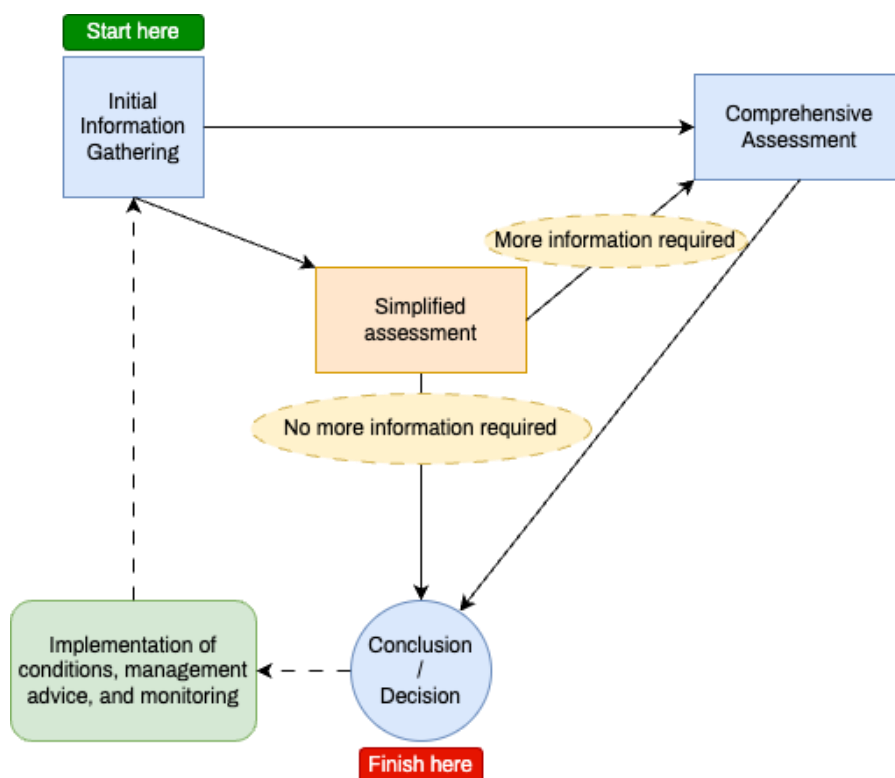


Figure 2A: Overall flow diagram of the process for making NDFs. Solid lines show routes for making an NDF, dotted lines show management advice and adaptive management elements of the process.

Initial information gathering	Background checks to ensure basic information is known about the specimens and its trade, and what type of an NDF, such as a Simplified or Comprehensive Assessment, is necessary. This may come from the permit application itself or information the Management Authority provides.
Simplified Assessment (optional)	Undertake a Simplified Assessment in cases where it is likely to be easy to establish whether or not the risk that harvesting for trade is threatening, or may threaten, the species with extinction.
Comprehensive Assessment	A Comprehensive Assessment can be undertaken without first doing a Simplified Assessment, or after a Simplified Assessment. A Comprehensive Assessment should be undertaken if it is not possible to determine non-detriment based on the Simplified Assessment.
Conclusion or decision.	Conclusion or decision. The final NDF decision is made, which may also include conditions or management advice.
Adaptive Management and Monitoring (Optional)	Once management advice is implemented, the impact of this should be monitored and information will feed into future NDFs.

4. Initial Information Gathering

If NDFs are being made on a case-by-case basis when an application is received, much of the information that is relevant at this initial stage ([Fig. 2B](#)) will be available on the permit application or through checks made by the Management Authority. If NDFs are being made nationally, for annual production or to set quotas, information from a general understanding of the species and trade will be necessary.

Initial Information Gathering
<ol style="list-style-type: none"> 1. Is the species correctly identified and named? 2. Is the species or specimen listed in Appendix I or II? 3. Is the species exempted or excluded from CITES controls? 4. Have recommendations been issued to suspend trade in the species being exported? 5. What is the quantity of specimens exported? 6. Describe the specimen 7. What is the source of the specimens? 8. What is the purpose of exports? 9. Where were (or will) the specimens (be) harvested from? 10. What is the scale of the current NDF assessment (e.g., national, or area-specific)? 11. National legislation – can national regulations help to understand potential detriment from harvesting or extinction risks? Are there national stricter domestic measures?

Figure 2B: Initial Information Gathering in order to understand what the NDF is being made for and the approach to it.

4.1. Is the specimen correctly identified and named?

Resolution Conf. 16.7 Paragraph 1. A) v) recommends that *the making of an effective non-detriment finding relies upon a correct identification of the species concerned and verification that it is specimens of this species that are to be exported*. It is essential to verify that the application for an NDF uses the correct scientific name as adopted for CITES purposes. However, one should be aware that sometimes additional information about the species may be available under older, synonymised names, and/or under newly-proposed names that are not currently accepted by CITES.

The Convention Text in Article II and IV states that the Scientific Authority of the State of export should advise *that such export will not be detrimental to the survival of that species*; with species having been defined in Article I as meaning *any species, subspecies, or geographically separate population thereof*. Therefore, the focus of the NDF should be on the species as a whole, the subspecies (if relevant) or geographically separate population of the species of which the relevant country makes up part or all of

the range. Regardless of how this is interpreted, the Scientific Authority is directed to make an NDF based on **the species**, not at a higher level.

However, this potentially poses a challenge for some species that have been listed at the genus level or higher because of taxonomic uncertainty, relevant data being generic due to difficulties in identifying specimens to the species level, and trade under common or generic terms where it is difficult to determine which species are included without more rigorous testing. Furthermore, there are some exceptions (see [Res. Conf. 12.3 \(Rev. CoP19\)](#)) where trade identified at the genus level has been deemed acceptable, for example, for stony corals (see [Notification to the Parties No. 2013/035](#)). There may be cases where making the decision at the genus level is the only practical option for a Scientific Authority; **this should be the exception and not the norm**. If the genus contains species known to be at different risks of extinction, or has some species more vulnerable to harvesting than others, then suitable precautionary conditions (see [module 1 section 4](#) on Precaution) will need to be applied to reduce the risks. The recommended approach to making an NDF, depending on the circumstances, is to assume that all harvest is of the most threatened species that may be included in the trade (i.e., most precautionary approach).

4.2. Is the species listed in Appendix I or II?

Refer to the [CITES checklist](#) and [Species+](#) websites for the latest listing information. This will guide the level of risk and precaution that may need to be applied. Also, see [module 4](#) guidance on making NDFs for imports of Appendix I-listed species.

4.3. Are the specimens exempted or excluded from CITES controls?

Some specimens are excluded from the Convention by annotation or by listing and therefore an NDF is not needed. For example, a Party may have [reservations](#) in place. See also Article VII of the [Convention text on Exemptions and Other Special Provisions Relating to Trade](#).

4.4. Have recommendations to suspend trade relevant to the species being exported been issued?

Recommendations to suspend trade in specimens of CITES listed-species may be issued by the Conference of the Parties via the Standing Committee (current suspension information is available on the relevant sections of the [CITES website](#)). These recommendations are communicated to the Parties via a notification from the CITES Secretariat. Recommendations to suspend trade are withdrawn when the impacted Party adequately addresses the issue(s) that led to the recommendation and thereby returns to compliance with the terms of the Convention.

The reasons behind a recommendation to suspend trade include inadequate domestic legislation, the need to reduce illegal trade, a failure to submit annual reports, or significant detrimental trade in CITES Appendix II (thereby contravening the terms of [Article IV of CITES](#)) (CITES, 1973, 2023a).

If a relevant recommendation to suspend trade is in force, then it is the responsibility of the exporting country to abide by the recommendations, as well as the importing country for Appendix I specimens or imports from the high seas.

4.5. Quantity of specimens

If the NDF is for a specific permit application, how many specimens are included in the application for export? Calculation of whole individual equivalents may be necessary if specimens are being traded as parts or derivatives. It is necessary to understand the potential total mortality rate incurred in obtaining quantities for export.

Low quantities of specimens for export relative to population numbers or a one-off export in relatively low quantities are likely to be low risk. This needs to be considered in relation to the whole harvest for domestic use and export as well as mortality rates from harvest and other threats. Even if the export makes up a very small percentage of offtake or is not the primary purpose of the offtake, if the whole offtake is detrimental, then the export should be considered to be detrimental too. The NDF process

may have the benefit of improving harvest management overall by flagging the issues with the Management Authority.

Where the NDF is for the whole country, for a specific area annually, or to set a quota, the quantity that would be considered detrimental should be determined through the NDF process itself.

4.6. Specimen description (e.g., part, derivative, age, sex, and size)

Offtake of particular parts, age, or sex of individuals may have different impacts on the population e.g., harvest of post reproductive individuals is likely to have a lower impact on the population than reproductive aged individuals; harvest of fruit will have a different impact to removal of whole plants.

4.7. Source of specimens (source code)

Source codes influence the approach needed for the NDF. All exports of Appendix I and Appendix II-listed species, apart from source code O, require an NDF to be made. As NDFs assess the impact on wild populations, NDFs for source codes W, R, X, U and I (see note later) assess the wild offtake directly for trade. NDFs for source codes A, C, D, F and Y assess the acquisition of parental breeding/propagating stock taken from the wild and any wild stock introduced into the management system, whether on a one-off or ongoing basis. Differences in the approach to making the NDF for specimens originating from different source codes are detailed in [Table 2B](#).

NDFs for captive-produced animals (source codes C, D and F) or plants from artificial propagation (source code A) require that an NDF is made for the acquisition of the founder stock harvested from the wild for production. Where the founder stock is maintained in a closed cycle facility (i.e., maintained without the need for additional specimens from the wild to augment the breeding stock), it should be possible to make an NDFs only once - for the original harvest from the wild. Assuming there are no other impacts of production on the wild population, it should be simple to make a positive conclusion that the trade can proceed. Where ongoing harvest from the wild is necessary to maintain the production of captive stock, updates to the NDFs will be required. The frequency of those updates will depend on how often any additional wild harvest takes place. Captive-bred or artificially propagated exports *may* be considered low risk; however, the Scientific Authority needs to be confident that no wild harvested specimens are being laundered through facilities. It is therefore important that the Scientific Authority checks, at least, the plausibility of the source code chosen. Plant specimens from well managed agroforestry, or other mixed cultivation under source code Y, may in some cases also be considered lower risk, although NDFs are still needed for any initial wild specimens that existed *in situ* or any removed from the wild to establish or enrich the production. If additional ongoing wild sourced specimens are harvested to sustain the production system, these would also require an NDF. Where artificially propagated specimens are used to establish or enrich the system, an NDF for the wild parental stock is required. Non-native or introduced species could also be considered as low risk because no native population would be impacted; in some cases, the management objective is to eliminate and/or control such species.

Generally, specimens of source code I are not exported. However, in exceptional circumstances, [Res. Conf. 17.8 \(Rev CoP19\)](#) on *Disposal of illegally traded and confiscated specimens of CITES-listed species* recommends that if the Management Authority has satisfied itself that sale of the specimens would not be detrimental to the survival of the species it can sell or export or re-export the specimens (see paragraph 8c). Given it is unlikely that the exact location of harvest is known, a good understanding of the harvest of the species and impact at the national level would be needed. Additional guidance on CITES Source Codes can be found [here](#).

Table 2B: CITES source codes and respective needs for making NDFs.

Code	Short description	NDF needed	Notes for Guidance on NDF
A	Plants that are artificially propagated	YES	PLANTS: NDF to be made on "cultivated parental stock" removed from the wild and any harvest of additional wild specimens for augmentation.
C	Animals bred in captivity	YES	

D	Appendix-I animals bred in captivity for commercial purposes and Appendix-I plants artificially propagated for commercial purposes	YES	ANIMALS NDF for harvest from the wild of breeding stock used to establish breeding operations, including any additional wild stock introduced.
F	Animals born in captivity (F1 or subsequent generations)	YES	NDF made on harvest of wild breeding stock.
I	Confiscated or seized specimens (may be used with another code) (see paragraph above with reference to Res. Conf.17.8)	YES (MA responsibility)	MA to be satisfied that sale would not be detrimental. See explanation above.
O	Pre-Convention specimens	NO	No NDF needed.
R	Rearing in a controlled environment of animals taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood.	YES	NDF for life stage of wild harvest required to produce exports.
U	Source unknown	YES	Treat as wild sourced. Harvest location likely unknown, therefore precaution needed/treat as higher risk.
W	Specimens taken from the wild	YES	NDF on (total) harvest for exports for App II and exports and purpose of imports for App I.
X	Specimens taken in “the marine environment not under the jurisdiction of any State” (including Introduction from the Sea)	YES	NDF on (total) catch (including post-discard mortality). See module 5 section 3.7
Y	Specimens of plants that fulfil the definition for “assisted production” in Res. Conf. 11.11 (Rev. CoP18) as well as parts and derivatives thereof.	YES	The complexity of the NDF will depend on the specific production system and area. It may be necessary to determine non-detriment for any initial wild specimens that existed <i>in situ</i> , or any removed from the wild to establish or enrich the production. If additional ongoing wild sourced specimens are harvested to sustain the production system, these would also require an NDF. Where artificially propagated specimens are used to establish or enrich the system, an NDF for the wild parental stock is required.

4.8. Purpose of export (Purpose code) and import

What is the purpose of export (and Import for App I)? The Scientific Authority may consider different purposes are likely to have different risks or benefits. It may be that specimens for scientific purposes or for breeding/propagation stock are viewed differently to specimens destined for commercial trade. See [module 4](#) for consideration of the purpose of import for Appendix I-listed import NDFs.

4.9. Where were (or will) specimens (be) harvested from?

This will determine the geographic area(s) of primary focus of the NDF assessment.

4.10. Scale of the current NDF assessment (e.g. national or area specific)

Typical levels of Resolution will be at the local (specified harvest area), sub-national, or national scale. The scale of assessment should be recorded at this stage to determine the amount of information needed in subsequent stages of the assessment. Providing maps of the areas for which the NDF is being made is often useful.

4.11. National Legislation

It is the role of a Party’s CITES Management Authority to make a legal acquisition finding (LAF). However, information behind national regulations could help understand the possibility of detriment and extinction risks, e.g., minimum cutting diameter for timber may relate to the age of maturity of trees.

Furthermore, there may be other regulations that should be considered, e.g., through the Convention on the Conservation of Migratory Species of Wild Animals (CMS) or Regional Fisheries Management Organisations. Some Scientific Authorities may find it useful to have a summary of the LAF at this stage, if available.

5. Simplified Assessment (optional)

If the Scientific Authority considers that it may be possible to easily determine that the trade will be non-detrimental using a relatively small amount of information, a Simplified Assessment can be undertaken. If a determination is not possible through the Simplified Assessment, a Comprehensive Assessment would be necessary. The Simplified Assessment ([Table 2C](#)) is particularly useful for cases where trade volume and harvest levels are low. High volume, or significant trade in threatened species, typically has a higher likelihood of negative impacts on wild populations, and such cases would naturally require more elaborate NDFs with greater substantiation of harvest levels. The Scientific Authority may decide that, for some situations or taxa, a Comprehensive Assessment is more appropriate from the start, in which case there is no obligation to complete the Simplified Assessment (see [modules 5-11](#) for further discussion).

The utility of the Simplified Assessment is that many species can essentially be “ruled out” of requiring comprehensive assessments, allowing Parties to focus energy and resources on species requiring a more in-depth assessment. Depending on the circumstances of trade, the Simplified Assessment can be applied to the full country or at sub-national level or for an annual quantity. The scoring criteria should be tailored to the circumstances.

A Scientific Authority may decide to use a Simplified Assessment with emerging trade but periodically review whether a more Comprehensive Assessment is required. Similarly, an initial Comprehensive Assessment may be more appropriate to begin with, followed by periodic Simplified Assessments.

The Simplified Assessment template includes the provision of scores for five basic criteria:

- 1) Annual harvest level;
- 2) Life history traits;
- 3) Area of distribution;
- 4) Conservation and Threat status
- 5) Illegal trade;

The template ([Table 2C](#)) can be used for all species, but specific guide values for each criterion should be tailored to the taxa involved (e.g., see [modules 5-11](#)) and take into account the scale of the assessment. The maximum score for categories one to three is three and the minimum score is one. For criterion four and five a maximum score of one can be given.

In this way, the Simplified Assessment template subscribes to a precautionary approach, in that any species that scores a three (3) in any of the first three categories listed in [Table 2C](#) will automatically qualify for a more Comprehensive Assessment. Regardless of the score assigned, for each criterion of interest a justification must be provided for why a particular score was given. If a species scores below five overall, then it is highly unlikely to be threatened by trade, and does not require a Comprehensive Assessment to be completed.

Even if the trade is determined to be non-detrimental through the Simplified Assessment process it should be repeated regularly to keep up-to-date with potential changes to the values being assessed against the criteria (such as changes in area of occupancy due to habitat loss). Species that do not require a more detailed NDF evaluation in the first year may require one in the future.

5.1. Practical steps for completing a Simplified Assessment

Step 1: Refer to general and taxon-specific guidance on how to assess and attribute taxon-specific reference values to each of the five criteria within the Simplified Assessment.

Step 2. When a species' harvest volume, area of distribution, life history traits, illegal trade and conservation status have been established, a score can be assigned to determine if trade may be detrimental.

Step 3. Record the Simplified Assessment scores for each criterion (see [module 13](#)), together with justification of each score.

Step 4. Based on the total score establish whether a finding of non-detriment can be made. If non-detriment is not determined, a Comprehensive Assessment is required.

5.2. Guidance for assigning Simplified Assessment criteria

This section provides detailed guidance on how to assess the five criteria within the Simplified Assessment. Importantly, it does NOT attempt to define reference values for assessing harvest level, area of distribution, or life history for different taxa. These criteria will be specific to taxonomic groups and information on how to assess these should be sought from the relevant modules.

5.3. How to score harvest level

When using the terms harvesting and harvest level, the total offtake, catch, or removal from the wild should also be considered. This includes quantities discarded at site that no longer contribute to the population (i.e., are dead or subsequently die due to harvest or harvesting techniques) or quantities lost through processing or mortality post-harvest (e.g., for live-traded specimens). It should include consideration of harvest for international trade as well as for domestic use, whether legal or illegal. The quantity of materials needed to be harvested or damaged to produce the volumes in trade may differ significantly. In some cases, conversion factors are available (see thematic guidance in [modules 5-11](#)).

If harvest levels are very low, then it may not matter that the species has a small area of occupancy or

Criteria	Number of points			Score
	1	2	3	
Annual Harvest level	Low	Medium	High/Unknown	
Area of distribution	Large	Medium	Small/Unknown	
Life-history	Fast	Medium	Slow/Unknown	
Conservation or threat status	If the status of the species is threatened or Unknown, give a max score of 1 point .			
Illegal trade	If levels of illegal trade are inferred by reference to seizure data, they should be included under "Annual harvest level". If illegal trade is known to be occurring, but <i>levels</i> are unknown give a max score of 1 point .			
Final Score and Justification	(If score lower than five (5) = trade is non-detrimental (record the score and justification in the worksheet provided). If the Simplified NDF score is equal to or greater than five (5) then a Comprehensive Assessment should be undertaken .			

a slow life history. For example, for many species (with the possible exception of micro-endemic or species that are highly threatened in the area under consideration) low level of harvest may not threaten the survival of the species in the wild. However, a “low” score will be highly taxon-specific and strongly related to the size of the population. For example, the catch of 40 anguillid glass eels would be considered low whereas 40 lions would likely be considered high.

In the absence of harvest data, reported annual exports, if available in the [CITES Trade Database](#) (considering the most recent years for which data are available), can be used to estimate current national harvest volume if there is no domestic consumption. If the species concerned is also used domestically, it can be assumed that the harvest level is greater than the export level.

5.4. How to score area of distribution

Knowing the geographic distribution of a species is important for understanding the spatial intensity of harvesting. Generally, the smaller a species' distribution the easier it might be to access and harvest a greater proportion of the population. Such species often have smaller population sizes because abundance is often density-dependent. Montane or island endemics are commonly considered to have small areas of occupancy. Conversely, species with larger areas of occupancy tend to have larger absolute populations, and the distribution of multiple populations across the area of occupancy means impacts of trade are lower. However, this principle does not hold true in all situations, especially for genetically distinct sub-populations such as of the White-rumped shama (*Copsychus malabaricus*). Though the species occupies a wide-range, distinct sub-populations such as the sub-species Barusan shama (*Copsychus malabaricus melanurus*), have the same characteristics as small-island endemics and are at serious risk of extinction from over-exploitation.

Area of occupancy (AOO) is defined as the area within a species' 'extent of occurrence' that is occupied, reflecting the fact that a species will not usually occur throughout the area of its extent of occurrence, which may contain unsuitable or unoccupied habitats. It is a subset of the area of distribution or extent of occurrence, which is defined by CITES as:

'The area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred or projected sites of occurrence of a species, excluding cases of vagrancy and introductions outside its natural range.' (1).

Where genetically distinct populations are known, AOO should ideally be considered at the sub-population scale, and in the absence of this information given due consideration in the weighting against the other criteria in the NDF report. In cases where AOO has not been calculated, information on the Area of Habitat can be a useful proxy. Area of Habitat (AOH) is defined as “*the habitat available to a species, that is, habitat within its range*” (see [Fig. 2B](#)) (2). Area of Habitat maps complement geographic range maps for species by showing potential occupancy. They provide an estimate of the upper threshold of a species' AOO by using data on each species' associated habitat area(s) in km² (2). For some taxa other aspects of area of distribution may be more important, for instance for migratory species/ transboundary populations connectivity, fragmentation, or barriers to migration may need to be considered. See [module 6](#) for further discussion.



Figure 2B: Hypothetical example of the relationship between Extent of Occurrence, Mapped Range, Area of Habitat, and Area of Occupancy.

Table 2D provides an example of how to score this criterion using data on (i) Area of Occupancy, or ii) Area of Habitat, or iii) Extent of Occurrence, using km² estimates. Scores are based on the IUCN Red List Categories Criterion B relating geographic range (3). An Area of Occupancy less than 2,000 km² or an Extent of Occurrence less than 20,000 km² are the triggers for considering a species 'Vulnerable' according to the [IUCN Red List Categories and Criteria](#). Taxon specific distribution reference values can be found in the thematic [modules 6-11](#).

Qualifier	Large	Medium	Small
Area of Occupancy / Area of Habitat	>20,000 km ²	2,000 – 20,000 km ²	<2,000 km ²
Extent of Occurrence	>200,000 km ²	20,000 – 200,000 km ²	<20,000 km ²
Primary Evaluation score	1	2	3

*Numbers are not prescriptive and may not apply to all taxonomic groups.

5.5. How to score life history

Life history concerns the intrinsic vulnerability of a species or population based on life history traits (including reproductive capacity) and biological characteristics (i.e., niche breadth). The biological attributes or life history traits of an organism determine in part to what extent it can sustain a level of wild-take or harvest. Understanding the basic biology of a species, and its vulnerability to harvest, helps you to assess the degree of risk (see [module 1 section 3](#)). Population size is ultimately determined by births, deaths, immigration and emigration ([Fig. 2C](#)). All of these factors vary over time and space. Species' life history traits are co-evolved and shaped by natural selection to allow populations of species to persist over the long-term.

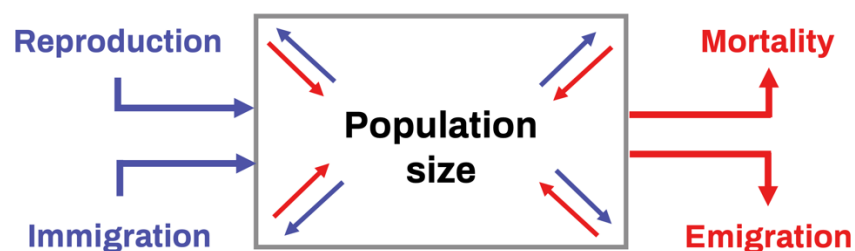


Figure 2C. Population size as a function of reproduction, immigration, mortality and emigration.

Life History Trait Gradients - Species' traits that are linked to growth, reproduction, longevity, habitat affinity, foraging mode, and other aspects of their biology are commonly called life history traits. Life history traits are co-evolved by natural selection and these suites of life-history traits, sometimes referred to as "life history strategies", enable populations to persist in their environment over the long term. Populations grow or decline based on the balance between births and immigration and deaths and emigration ([Fig. 2C](#)). How fast a population may recover from decline, for example, is influenced by a species' life history, available habitat, immigration, and the population density of the species itself and other species.

There are myriad reproductive and biological modalities among plants and animals that include degrees of parental care and investment, nutrient gathering, life span, and other attributes that are part-and-parcel of their suite of life history traits. For example, species with short lifespans typically reach maturity quickly and invest a lot of their reproductive effort early on in their lifetime. Species with long lifespans typically mature later and infrequently have small numbers of offspring. Many ecologists refer to this as the *Slow-to-Fast Continuum* of life histories, with K-strategists and r-strategists at the extremes (see [module 1 section 3.3.1](#)).

For the purpose of the Simplified Assessment, it is useful to narrow down this variation in life history into three major life history trait gradients that strongly influence population biology: **time to maturity**; **number of offspring per reproductive event**; and **frequency of reproduction** (yearly, biannual, sporadic). All of these are associated with life span. Even coarse knowledge of these traits allows for scientifically defensible placement of species on the slow-fast continuum. These three life history gradients also give insight into the interplay between life history traits and population growth and resilience.

5.6. What if a species has not been studied?

If life history traits have not been described for a species in trade, it may be possible to estimate them by looking at the range of traits in closely related species. However, this is not always reliable and care should be taken with this approach. When proxies are used, this should be noted, as should the confidence in them. Sometimes, it may be necessary to take a more precautionary approach. Managers can examine samples of specimens that have been harvested and take advantage of local ecological knowledge. Nevertheless, Scientific Authorities should endeavour to increase their knowledge of a species' biology by studying species, as they are collected for trade, and commissioning biological field studies – where possible. In many cases, data on reproduction biology has been only reported from captive specimens. When using such information, it has to be taken into account that the reproductive potential may differ between specimens kept in captivity and wild specimens. For example, specimens propagated or raised and fed well in captivity can reach maturity earlier than specimens in natural habitats.

5.7. Using generation length as a proxy for assessing the life history criteria

In the absence of some life history information, a useful proxy is generation length. Generation length is a good proxy for biological scaling of population decline rates in many species, and their incorporation in conservation assessments supports understanding the impact of population declines on conservation status. Longer generation lengths are associated with K-selected species (those with 'slow' life

histories), those which are long-lived, mature late, with few offspring. The reverse is true for r-selected species (those with 'fast life histories'). K-selected species are generally considered to be at higher risk.

Generation length is defined in [Res. Conf. 9.24 \(Rev. CoP17\) Criteria for amendment of Appendices I and II](#) as: *the average age of parents of the current cohort (i.e., newborn individuals in the population). Generation length therefore reflects the turnover rate of breeding individuals in a population. Generation length is greater than the age at first breeding and less than the age of the oldest breeding individual, except in taxa that breed only once. Where generation length varies under threat, the more natural (i.e. pre-disturbance) generation length should be used.*

5.8. How to score conservation status

Conservation status assessments can come in a variety of forms both from conservation and production perspectives (e.g., IUCN Red List, Red Data Books, threatened species listings, fish-stock status assessments, etc.). Assessments can cover a range of geographic scales (sub-national, national, regional, or global). It may be that there are conflicting status assessments. For example, a national or sub-national assessment may be more relevant to assessing the impact of harvest than a global conservation status assessment, although the latter can also give a useful complementary indication of risk. In addition to considering the assessment most relevant to the area being assessed, it is important to consider how up-to-date and current the information and assessment method is. A certain amount of judgment will be needed where there are multiple assessments that differ, some of which may give conflicting indication of status. It is also important to consider the quality of information underpinning assessments.

Species that are threatened (Vulnerable, Endangered, or Critically Endangered on the IUCN Red List or equivalents for other assessments, including overfished or depleted) are scored with a 1 within the Simplified Assessment. Where species have not been assessed on the IUCN Red List or there is inadequate information to assess the status (Data Deficient) a score 1 is also given.

5.9. How to score illegal trade

Non-detriment findings should take into account all harvest that is occurring domestic and international legal and illegal trade. This criterion can be used as part of the Simplified Assessment to take into account suspected or estimated levels of illegal trade. If levels of illegal trade can be estimated approximately through extrapolation of seizure data, then Scientific Authorities should include illegal trade levels under the Harvest Level criterion in the Simplified NDF template. If volumes of illegal trade are unknown, but illegal trade is known to be occurring, then a score of 1 should be given. For migratory species and transboundary populations, it may be important to consider illegal harvest/poaching and trade across the species' range.

6. Comprehensive Assessment

If establishing non-detriment easily using a relatively small amount of information is not possible, a more Comprehensive Assessment should be undertaken. Comprehensive Assessments examine a wider breadth of information and are suitable for trade in those species occurring at higher volumes, with slower life-histories, have small distributions, are susceptible to threats, and where information or knowledge may be lacking, incomplete or of poor quality.

Completion of Comprehensive Assessments can be broken into two steps. The first is an evaluation of risk to determine the data requirements needed for a second step focused on impact and management evaluation.

Similar to the Simplified Assessment, in lower-risk situations it may be possible to make a relatively straightforward decision that trade is non-detrimental. For higher-risk scenarios more complex and detailed information is needed (see [module 1 Fig. 1C](#)). High risk scenarios should not automatically result in a decision not to export, but the Scientific Authority may require more information to be satisfied that the management measures in place are robust enough to ensure that harvesting and trade remains sustainable. This section provides guidance on how to complete both the Risk Evaluation and Impact

and Management Evaluation. It may be useful to note the level of confidence in relation to information used in these assessments and where confidence is low to take a more precautionary approach.

6.1. Part 1: Risk Evaluation

The first step in the Comprehensive Assessment is to undertake a more detailed assessment of risk. This section diagrammatically defines the criteria that should be assessed and offers supporting text for completion of that assessment (Fig. 2D).

Risk Evaluation

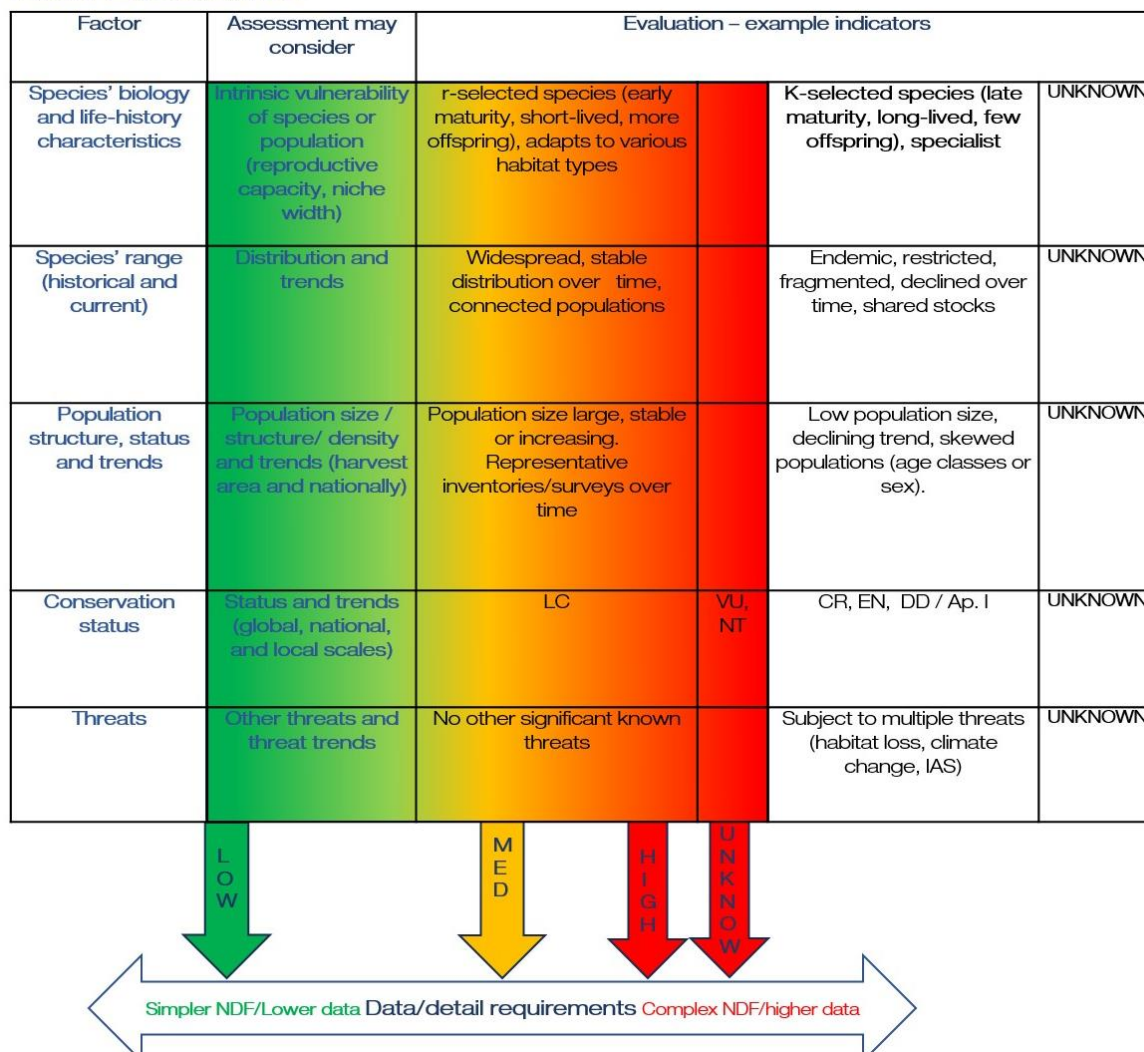


Figure 2D: Risk evaluation phase for making more Comprehensive Assessment. Risk evaluation phase determines data requirements for next Impact and Management evaluation phase.

A number of key factors help determine the level of risk and therefore the data requirements needed to determine with confidence that trade is not detrimental.

6.2. Species' biology and life history characteristics

The biological attributes or life history traits of an organism determine to what extent it can sustain a level of wild-take or harvest. Understanding the basic biology of a species, and its vulnerability to harvest, helps Scientific Authorities to assess the degree of risk. For example, slow-growing species with low fecundity (few offspring produced) are likely to be more susceptible to over-exploitation than a species that grows and matures rapidly and produces numerous offspring. These different characteristics are often described by the concepts of 'K-selected' and 'r-selected' species (see [module](#)

1 section 3.3.1) some and are generalised respectively as higher risk (red) and lower risk (green) in the Framework diagram ([Fig. 2D](#)).

The life-stage of the harvested species will also influence the life-history characteristics of a species and its vulnerability to harvesting, and this may vary within species. For example, in some species such as crocodiles and sea turtles reproduction has some r-selected traits (many eggs produced with low survival), but adults show K-selected traits (long-lived, high survival but strong density-dependence). Hence harvesting 100 eggs is significantly lower risk than harvesting 100 adults.

Migratory species and transboundary populations may be more vulnerable due to increased exposure to a greater range of threats and make monitoring populations more challenging (see [module 6](#)).

6.3. Species' range (historical and current) and trends

Scientific Authorities should take into account the national distribution range of the species, and the national distributional trend over time (e.g., is it stable, contracting, or expanding). A species that is widespread across the country with no evidence of range contraction could be a low-risk scenario. If the population is scattered, it should be considered whether populations are connected or isolated. For additional thematic guidance, see [module 5](#) and [module 6](#) on aquatic species (shared stocks) and migratory species and transboundary populations, respectively.

6.4. Population structure, status and trends

Population data should be included in the assessment; global population sizes as well as regional and national populations sizes if known, as well as sub-national scale where feasible. Population data relating to size classes may be particularly important for some species (e.g., queen conch, timbers). Comprehensive inventories are always better but other indices such as catch per unit effort (CPUE) are also useful.

6.5. Conservation Status

As described in [Section 5.6](#), conservation status assessments can come in variety of forms from both conservation and production perspectives (e.g., IUCN Red List, Red Data Books, threatened species listings, fish-stock status assessments, etc.). There is also, where available, a role and contribution of knowledge, including traditional knowledge, of indigenous peoples and local communities in provision of inputs to describe the status of species (see [module 4](#) on local and traditional knowledge and participatory species monitoring and management in NDFs). Assessments can cover a range of geographic scales (sub-national, national, regional, or global). It may be that there are conflicting status assessments; a national or sub-national assessment may be more relevant to assessing the impact of harvest than a global conservation status assessment, although the latter can also give a useful complementary indication of risk. In addition to considering the assessment most relevant to the area being assessed, it is important to consider how up-to-date and current the information and assessment method is. A certain amount of judgment will be needed where there are multiple assessments that differ, some of which may give conflicting indication of status. It is also important to consider the quality of information underpinning assessments.

6.6. Threats / other pressures

A species or population of a species could be subject to threats or other pressures that may impact its vulnerability to harvesting. Multiple threats to a species or population may increase the risk. Threat information is often available through conservation assessments, which reflect these pressures on the likelihood of extinction.

6.7. Part 2: Impact and Management Evaluation

The second step when undertaking a more Comprehensive Assessment is to conduct an Impact and Management Evaluation. Contrary to the risk evaluation step, which focuses on inherent aspects of a

Impact and Management Evaluation

Factor	Assessment may consider	Evaluation - example indicators (not exhaustive)		
Harvest impacts/total offtake impacts	Impact of harvest/total offtake on harvest area, national population and internationally. Consider total volume of harvest/offtake (both for domestic and export as well as any other offtake, or removal of specimens from the wild) and legal and illegal harvest. Consider harvest/offtake from harvest area in context of national level trade and trend.	Low impact (e.g., Non-lethal harvest* that does not imply removal of individuals from the wild; Harvest of life stages with low survival rate (source R); Harvest is in post-reproductive stages only - (e.g. older males). Harvest not impacting other areas.	Impacts severe (e.g., harvest doesn't take into account age/sex of specimens or is done at critical life stages for reproduction). Harvest area acting as sink for surrounding areas.	LOW/MED
Trade impacts	Impact of trade on harvest area, national population and internationally. Consider total volume of trade (domestic and export) trade (known, inferred, projected, estimated).	Low levels of trade relative to population. Little illegal trade known.	High levels of trade in comparison with population. Illegal trade known.	LOW/MED
Population monitoring	Is a monitoring program in place? Frequency of monitoring depending on species characteristics. Methods for monitoring.	Regular, using robust methods (changes in density, distribution, demography considered)	No/infrequent monitoring, unreliable methods	LOW/MED
Management measures in place/proposed including adaptive management	Harvest management/ compliance / land and resource tenure	Measures in place (e.g. quotas, size/sex limits, protected/no-take areas, limits on effort/gear. Tenure: strong long-term control	No or inadequate management measures in place. Tenure: Open access e.g. fisheries in ABNJ, no harvest controls	LOW/MED
<p>LOW/MED No need for ecosystem Impact evaluation</p>				
Ecosystem Impacts				
Impacts on role in ecosystems and direct impact on other species and the ecosystem	Does harvesting impact other species or the ecosystem directly or the species' role in the species ecosystems resulting in: (Consider in detail only if high risk/ complex NDF needed)	<p>Evaluate the following for impacts on role in ecosystems and direct impact on the ecosystem based on best available information:</p> <ul style="list-style-type: none"> a significant change in the abundance of another native species an increase in the abundance of a non-native species or over-abundance of another species a reduction in a demographic rate in any life stage of another native species (e.g., germination, seed production, nest success, natal dispersal, etc.) that has the potential to decrease its abundance or otherwise reduce its viability change in any ecosystem process or structural feature change in the typical patterns of behaviour (e.g., social interactions, patterns of aggregation, movement) among individuals of the species being assessed or other species change in genetic structure or variability of the population that indicates that one or more of the ecological functions of the species' are, or will become, impaired 		

Figure 2E. Aspects relevant for impact assessments in more Comprehensive NDFs. **Note:** non-lethal harvest indicates instances where individuals are not removed from the population, this does not include harvest that removes whole **live** individuals (e.g., for the pet or ornamental trade), which effectively removes the individuals from the wild population even if the individual is not killed.

species and its trade, this considers the impacts of harvesting for trade, and the management and monitoring measures in place.

Finally, in situations where the risk and impact and management evaluations are considered to be high, by the Scientific Authority should consider the impact of trade on the ecosystem ([Fig. 2E](#)).

6.8. Harvest impacts

In this guidance, the term harvest has been used to encompass deliberate take, extraction, or removal of specimens from the wild. Different terms are often used in different industries; fisheries use the terms fishing, catch, or capture; forestry uses logging; hunting is used for harvesting of trophies or wild meat; and gathering is often used to refer to non-timber plant harvesting. Total offtake (or effective removal from the population) should be assessed, not just harvest for international trade (i.e., should also include domestic use/consumption). Legal and illegal harvest should be considered even if inferred, projected, or estimated. Impacts may depend on the life stages of specimens harvested (see [module 1, section 3.3.1](#)). When considering the impacts of harvesting all effective offtake/harvest mortality/loss from the wild population should be taken into account to determine sustainability; this may include landed by-catch, post discard or release mortality, as well as mortality or damage to individual specimens that are discarded at site.

The most important harvest impact to consider will be on extraction at the harvest site (or sites) for the specimen to which the NDF applies. Harvest impact at the national level and international level should also be assessed; a seemingly sustainable harvest from one area may be acting as a sink for the species from other areas. Harvest of migratory species and transboundary populations may have more impact on populations in areas outside the country than the levels of harvest within the country (see [module 6](#)).

A general understanding of overall harvest trends (harvest overview) for the country will also be useful for the context of the harvest being assessed. Harvest of critical life stages for reproduction may indicate higher levels of risk.

Some examples of lower risk:

1) **Export of parts that do not remove the individual from the population.** Non-lethal harvest is likely to be lower risk. Non-lethal harvest indicates instances where individuals are not removed from the population, but parts are harvested without killing the individual plant or animal. Examples of such harvests include fruit, resins, or partial bark removal (e.g., *Prunus africana*) from trees, wool sheared from live vicuña (*Vicugna vicugna*), and collection of baobab fruit (*Adansonia grandidieri*). However, the harvest may still have impacts on the population, such as affecting reproductive success of the individuals or the population overall, or may result in mortality at a later date. Non-lethal harvest does not include harvest that removes whole live individuals (e.g., for the pet or ornamental trade), which effectively removes the individuals from the wild population even if the individual is not killed during harvest.

2) **Products from secretion or natural mortality.** Trade in these specimens does not deliberately remove individuals from the population. For example, sperm whale (*Physeter macrocephalus*) teeth or ambergris that have washed up on shore. [Res. Conf. 9.6 \(Rev. CoP19\)](#) on *Trade in readily recognizable parts and derivatives* stipulates that urine, faeces and ambergris, that has been naturally excreted, are waste products and are therefore not covered by the provisions of the Convention. However, it would be important to ensure that exports do not stimulate further killing for international trade.

3) **Removal of certain life stages.** Removal of high mortality or post-reproductive life stages may represent a lower risk scenario, in terms of impact on the population for some species. For instance, [Res. Conf. 11.16 \(Rev. CoP15\)](#) on ranching notes that ranching of crocodylians on the basis of controlled collection of eggs or hatchlings can be potentially a valuable and positive conservation tool, whereas taking of wild adult animals needs stricter control. The Resolution defines the term

ranching as *the rearing in a controlled environment of animals taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood*” and that *“ranching for some species has proven to be a ‘safe’ and robust form of sustainable utilization relative to wild harvests of adults*. Similarly, the harvest of older, post-reproductive males is a strategy used to ensure the sustainability of some species exported as hunting trophies. However, the assumption that some life stages are more or less vulnerable will be taxon specific and should take into considerations the complexity of life stages.

6.8.1. Trade impacts

A general overview of trade trends is a useful indicator for the species overall. International trade trends and national exports over the past years can easily be obtained from the [CITES Trade Database](#) or [CITES Wildlife TradeView](#). An understanding of illegal trade trends should also be taken into account, as well as domestic consumption (both legal and illegal). Data on illegal trade can be accessed from Parties’ own annual illegal trade reports.

Impacts of trade should be considered on the harvest area, national population, and throughout its range (including internationally). Conversion factors may be necessary to understand the quantities of harvest for different products in trade. Consider total volume of export vs domestic trade and legal and illegal trade (known, inferred, projected, estimated) and what levels of offtake might be needed for production of quantities in trade. Where species are migratory, or populations are transboundary, trade from other parts of the species’ range may be particularly important to assess. Fluctuations in trade may indicate issues with supply or demand.

6.8.2. Population monitoring

Population monitoring is fundamental to understanding the impact of harvest. Regular monitoring should ensure that management (including harvesting) can be adapted. How the harvested population should be monitored and how often will depend on the species (see thematic modules for guidance on monitoring); as well as how established the harvest is and other threats and pressures on the population. Methods of monitoring and what is monitored (e.g., sampling strategy, metrics - numbers, stratified numbers, density, distribution etc.) need to be appropriate in order to give reliable results and to allow management to counteract any negative impact.

Infrequent or no monitoring will be of high concern. Inappropriate methods of monitoring would also lower the confidence in results of monitoring. Regular long-term monitoring with appropriate robust monitoring methods is the ideal (see [module 1, section 9.5](#) for more information on different data/ indicators that can be obtained through monitoring).

6.8.3. Management measures in place/proposed including adaptive management

Harvest and trade management measures (in place or proposed) should be reviewed to assess whether they are adequate to ensure harvest and trade are non-detrimental and that risks identified are mitigated.

Key questions to consider:

- Are management measures effectively implemented/ complied with?
- Does land and resource tenure (see [module 1 section 3.3.4](#)) increase the likelihood of compliance with management regulations in the longer term?
- Is management adaptive, based on appropriate population monitoring (see [module 1 section 9.0](#))? A harvest with a long history of effective management is more likely to be sustainable than an unmanaged harvest. A managed harvest, with adaptive management based on reliable monitoring of how harvest affects the population is the optimum situation.

6.8.4. Ecosystem Impacts Evaluation (to be undertaken in higher risk situations).

Where higher risk is assessed through the Comprehensive Assessment, evaluation of the impact of harvesting of the species for trade on its role in the ecosystems in which it occurs (see [module 1 section 6.0](#)) and broader impact on non-target species in the ecosystems in line with the Kunming-Montreal Global Biodiversity Framework** (see [module 1 section 6.2](#)).

****Note:** Not all Parties to CITES are Party to the Convention on Biological Diversity.

Based on the best available information consider the following impacts.

- a. significant change in the abundance of another native species;
- b. an increase in the abundance of a non-native species or over-abundance of another species;
- c. a reduction in a demographic rate in any life stage of another native species (e.g., germination, seed production, nest success, natal dispersal, etc.) that has the potential to decrease its abundance or otherwise reduce its viability;
- d. a change in any ecosystem process or structural feature;
- e. a change in the typical patterns of behaviour (e.g., social interactions, patterns of aggregation, movement) among individuals of the species being assessed or other species;
- f. change in genetic structure or diversity of the population that indicates that one or more of the ecological functions of the species are, or will become, impaired.

Where there is significant concern, the Scientific Authority could advise Management Authority on measures to take e.g., which features of the ecosystem would be the most essential to monitor.

Where there is little available information on roles in ecosystems or on impact to other non-target species and no particular concern to this effect, the most pragmatic approach is to assume that if there is a viable population (above minimum viable population) of the species distributed over as much of its range as possible and it is being sustainably harvested, this is a good enough proxy to accept that the species is maintaining its roles in the ecosystem(s); i.e., if harvest and export is non-detrimental to the species, assume that its roles in the relevant ecosystems are maintained.

For additional guidance on assessing the role of species in their ecosystem, see [module 1, section 6](#).

Step 5: Conclusion or decision

<p>Conclusion / Decision</p> <ul style="list-style-type: none"> ➤ Positive/Trade not detrimental ➤ Negative/Trade is detrimental, or insufficient information available <p>With</p> <p>Conditions / Remedial Actions / Management Advice</p> <ul style="list-style-type: none"> ➤ Conditions on trade taking place or advice from Management Authority on management ➤ Changes that would be needed for a positive NDF
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Figure 2F: Considerations for Step 5.

6.8.5. Types of NDF Decisions

Non-detriment decisions can be either

- **Positive**; meaning that export will be non-detrimental and the Scientific Authority advises the Management Authority as such; or
- **Negative**; meaning exports may be detrimental, or more information is required, and thus should not be approved;

These decisions may be made with conditions or management advice for remedial actions (see [module 1 section 5.](#)). For instance, a positive NDF could be made subject to certain conditions being in place, which are intended to mitigate defined risks and ensure sustainability of harvests such as allowing a more limited export or certain size or sex of specimens. A negative NDF may include conditions or management advice that would need implementing before a positive NDF might be possible and any future trade permitted. Review of implementation of these would be part of the adaptive management of the NDF process itself. See [module 1 section 5.2.1](#) for additional details of potential conditions.

Terminology may differ between Parties; for instance, some Parties use the term “precautionary” or “partial” NDFs where the number of specimens is adjusted to limit an export to sustainable levels as those requested to be exported are considered unsustainable/detrimental; this makes sense for NDFs submitted before the harvesting of the species occurs, and thus inform the harvest authorization to avoid negative impacts since the harvesting occurs. Others would consider this to be a “Conditional NDF” (see [Fig. 2F](#) for an overview of relevant considerations in Step 5 of making more Comprehensive NDFs).

6.8.6. Preparing a Non-Detriment Finding

An NDF should detail the information used and science-based rationale to establish the conclusion. For some species this may only be a completed Simplified Assessment including the justification for the scoring, but for others requiring a Comprehensive Assessment it may include analyses of harvest trends through to detailed monitoring and management protocols. The results and explanation of monitoring protocols or management systems used to complete the Comprehensive Assessment do not need to follow a specific format.

Any conditions and the rationale for these should be detailed to justify why they are necessary in order to ensure trade is not detrimental.

Parties are encouraged to share written NDFs, including both positive and negative NDFs, through the [CITES NDF database](#) whenever possible in alignment with [Res. Conf. 16.7 \(Rev. CoP17\)](#). Sharing NDFs and the process by which NDFs are made may help all Parties effectively implement the NDF requirement and improve transparency for this fundamental CITES process.

7. Module 2 references

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