



International Expert Workshop on CITES Non-Detriment Findings

Cancun,
Mexico,
November
2008

Working
Group 8



Fishes

Working Group Summary

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:

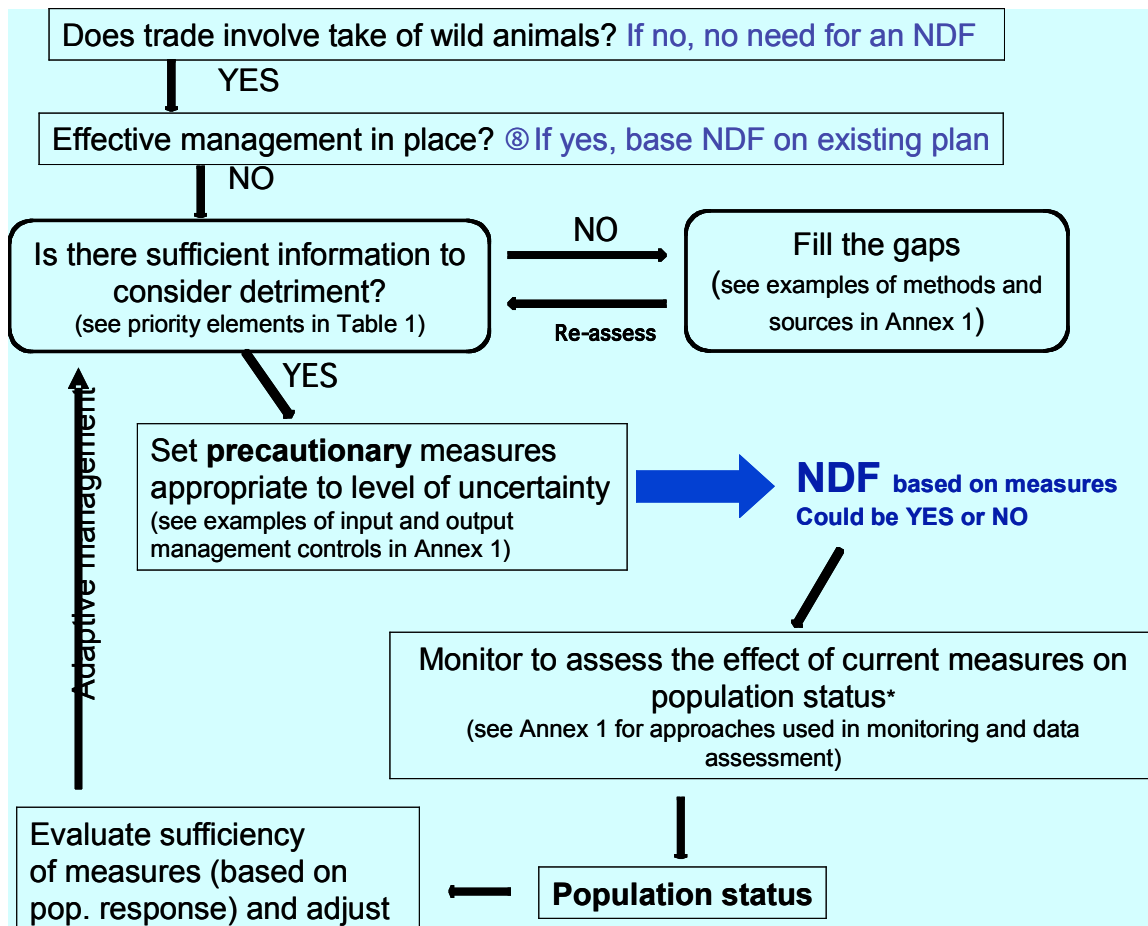
- Fisheries management has a long history of trying to understand how you can best manage the harvest of fish so it is not a new concept;
- Many training manuals and databases exist to support those making NDF;
- In terms of risk, fish listed on Appendix II of CITES have already been concluded by Parties 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 their 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
which species	taxonomy
where (locations, depth, habitat)	spatial distribution; habitats
when (time of year)	temporal distribution
how	abundance (preferably over time)
size/age structure	size/age distribution; growth; mortality
sex (male, female, juvenile)	sex ratio
mature (yes/no)	size/age at maturity; schedule
all significant sources of mortality	make NDF in context