

## **ANNEX**

### **Guidance to Parties on making non-detriment findings for aquatic invertebrates**

Approach based on a suggested cyclic 4 step process

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

**Risk assessment** (issues to consider when assessing the risk to the species/population of any harvest with a component destined for international trade)

- Proportion of the population subject (based on data or guesstimate) to harvest whether for domestic or international trade or consumption (based on current or anticipated levels of trade)
- Value of the commodity in trade [**value**] and what are 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 – and the risk of any management measures being breached [**violability**] – whether illegal take / trade is significant
- 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
- Biological characteristics of the population / species / taxon – especially productivity and resilience to harvest and known / perceived trends in species. In multi-species fisheries identify most vulnerable taxa. [**vulnerability**]
- Are stocks shared (by different countries or different authorities within a country) and subject to multiple harvests across their range?
- External factors affecting population – eg hurricanes, climate change, invasive alien species, pollution, habitat loss or damage
- Ecosystem impacts – will the fishery affect other non-target species and / or habitats and the services they provide
- Document or record rationale for risk assessment – may be qualitative or quantitative - and determine review period (if required)

[NB three '**Vs**' in bold derived from 1<sup>st</sup> FAO consultation on CITES criteria for commercially exploited aquatic organisms]

**Regulate the harvest** – based on assessment of risk above, consider appropriate management measures (suggested toolkit of approaches below) which are proportionate to the risk and to available capacity (with assumption that the greater the risk the more precautionary the harvest – measures are not mutually exclusive and are broadly listed in terms of complexity of implementation)

- Do nothing (but monitor any impacts – see below)
- Use refugia to restrict the proportion of population subject to harvest – refugia may be protected or no-take areas or *de facto* refugia due to limits on fishing capacity (eg deep-water populations not available to harvest by divers) – expanding the proportion of species' range covered by such refugia if greater risk or uncertainty. Complexity of measures range from community controlled no-take zones to designated national / marine parks
- Quotas - on number of specimens that are permitted to be harvested (from defined localities – distribute amongst harvesting areas) or exported – set quotas at lower more precautionary levels (even if these are initially arbitrary) where risk seems high and / or information is poor / uncertain
- Size limits (maximum and/or minimum) – a proxy measure to reduce the impacts of harvests – these may be defined by biological characteristics to limit take to less vulnerable parts of population or may be *de facto* measures due to particular sizes desired in trade (if this is compatible with reducing impacts on populations)
- Limits on fishing effort and / or methods – through limiting number of fishing licences or boats/nets or other gear or time restrictions – seek to train fishermen and enhance standards
- Use appropriate permit / licence or other control mechanisms
- Set thresholds or reference points to determine when management interventions might be required
- Shift from wild harvests to other production systems (eg captive production of giant clams) – this may be driven by desire to reduce pressure on declining wild stocks (linked to re-stocking) or by market demands
- Where appropriate seek to build co-management and public participation (especially traders / applicants) in decision making to increase 'ownership' and understanding of the need for regulation
- For shared stocks, collaborate with other range states to seek combined management measures avoiding cumulative impacts on populations.
- Prohibit exports or harvest / fishery (temporarily) if necessary and risks very high and supporting information uncertain

**Record harvests and population responses** record impacts of any harvests through fishery dependent or independent data, trends in populations and shifts in markets (proportionate to the risk and to available capacity). Understand the limitations and the confidence you can place in any results.

#### Fishery independent data

- Surveys of biological parameters of the resource – using repeatable and standardised methods – to determine trends in the resource or in selected indicators

- Ensure that refugia are genuinely acting as such and maintain viable populations of the species and / or contribute recruits to harvested areas.
- Use of local / harvesters / traditional knowledge
- Track changes in status elsewhere especially for shared stocks

#### Fishery dependent data

- Monitor landings, size of harvested specimens, logbooks, geographic locations of harvests, logbook information, catch per unit effort.
- Use metrics / conversion factors to make data more meaningful in population terms
- Monitor compliance – e.g. proof of legal acquisition, enforcing management measures

#### Market responses

- Trends in market demand – change in prices or demand for types of specimens / commodities in trade
- Whether illegal trade is known or thought to occur

#### External factors

- Record impacts of any changing external factors

**Review, revise and refine** based on information from monitoring review risks and effectiveness of measures and refine/revise management measures as appropriate based on periods relevant to species and / or risks

- Use feedback from monitoring to review and, if necessary, revise management measures.
- Identify gaps in knowledge and, if necessary, undertake work to enable appropriate feedback mechanisms to be established.
- Review original risk assessment

#### **Have we achieved non-detriment?**

Non-detriment achieved 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 are being effectively mitigated and addressed.