Protecting Deep Sea Ecosystems of the High Seas: An Update

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New York
UN Resolution 61/105  12/06

OP83.  Calls upon regional fisheries management organizations or arrangements with the competence to regulate bottom fisheries to adopt and implement measures, in accordance with the precautionary approach, ecosystem approaches and international law, for their respective regulatory areas as a matter of priority, but not later than December 31, 2008:

– To assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorized to proceed.
To identify vulnerable marine ecosystems and determine whether bottom fishing activities would cause significant adverse impacts to such ecosystems and the long-term sustainability of deep sea fish stocks, inter alia by improving scientific research and data collection and sharing, and through new and exploratory fisheries;

In respect of areas where vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, are known to occur or are likely to occur based on the best available scientific information, to close such areas to bottom fishing and ensure that such activities do not proceed unless it has established conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems; and
UN mandate

- To require members of the regional fisheries management organizations or arrangements to require vessels flying their flag to cease bottom fishing activities in areas where, in the course of fishing operations, vulnerable marine ecosystems are encountered, and to report the encounter so that appropriate measures can be adopted in respect of the relevant site;

- OP85. *Calls upon* those States participating in negotiations to establish a regional fisheries management organization or arrangements competent to regulate bottom fisheries to expedite such negotiations and, by no later than December 31, 2007, to adopt and implement interim measures consistent with paragraph 83 and make these measures publicly available;
Existing RFMOs with Competence to Regulate Bottom Fisheries
Areas where RFMOs for high seas bottom fisheries are currently under negotiation or awaiting entry into force

Right: Northwest Pacific, FAO Statistical Area 61

Below: South Indian Ocean Fishery Agreement (adopted July 2006, awaiting entry into force)

Bottom right: South Pacific RFMO, proposed boundaries
Fishable seamounts in FAO Statistical Area 61

MCBI, from Kitchingman & Lai
OP89. ....developing standards and criteria for use by States and regional fisheries management organizations or arrangements in identifying vulnerable marine ecosystems and the impacts of fishing on such ecosystems, and establishing standards for the management of deep sea fisheries....
FAO criteria for designating VMEs in areas beyond national jurisdiction

a) **Contain unique or intrinsically rare species, communities or habitats** – An area or ecosystem that is unique or that contains rare species should be considered vulnerable, since its loss could not be compensated for by other areas.

b) **Contain habitats that support endemic species** – An area or ecosystem that has significant rates of endemism should be considered vulnerable.

c) **Support the presence of depleted, threatened, or endangered species** – Areas that contain depleted, threatened or endangered species for all or part of their life histories would be considered vulnerable.

d) **Contain important habitat** for populations and for which alternative habitats are not known to exist or are uncommon – A discrete area or habitat that may be essential for the survival, spawning/reproduction, or recovery of a species (target or non-target species) should be considered vulnerable, whether or not the actual functional relationship between species and habitats are known.
e) Are fragile – An area that contains populations, communities, or habitats that are easily damaged by anthropogenic activities, including fishing, should be considered vulnerable, particularly if the features that are damaged have long recovery times or where recovery may not be to the former pre-impact state. Many organisms that structure biogenic habitats – e.g., corals, sponges, and bryozoans are relatively fragile and highly susceptible to physical impacts.

f) Are structurally complex - An area or habitat that is characterized by complex physical structures created by biotic features (e.g., corals, sponges, bryozoans) or by abiotic features (e.g. boulder fields, clay levees). In these areas, ecological processes are usually highly dependent on these structured systems. Further, such ecosystems often have high diversity, which is dependent on the structuring organisms or physical features. Such areas have been shown to be vulnerable to physical disturbance.

g) Support species whose life-history traits make recovery long or unlikely if impacted – Areas that support species with one or more of the characteristics in 3b (paragraph 17) are vulnerable. [Paragraph 17 includes characteristics such as, maturation at relatively late ages, slow growth, long life expectances, low natural mortality rates, intermittent recruitment and irregular spawning].
CBD draft criteria for high seas

MPAs

1) **Uniqueness or rarity** (area contains either (i) unique ("the only one of its kind"), rare (occurs only in a few locations) or endemic species, populations or communities, and/or (ii) unique, rare or distinct habitats and/or (iii) unique or unusual geomorphological or oceanographic features).

2) **Special importance for life history stages** of species (areas that are required for a population to survive and thrive)

3) **Importance for threatened or endangered or declining species** and/or habitats (area containing habitat for the survival and recovery of endangered, threatened, declining species or areas with significant assemblages of such species).
CBD criteria (con’t)

4) **Vulnerability /fragility /sensitivity /slow recovery** (areas that contain a relatively high proportion of sensitive habitats, biotopes or species that are functionally fragile (highly susceptible to degradation or depletion by human activity or by natural events) or with slow recovery.)

5) **Biological productivity** (area containing species populations or communities with comparatively higher natural biological productivity)

6) **Biological diversity** (area contains comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher genetic diversity)

7) **Naturalness** (area has a comparatively higher degree naturalness as a result of the lack of or low level of human induced disturbance or degradation).