



## Summary of activities of the CBD Secretariat relevant to the collaboration with Global Forum (June 2008 – May 2009)

1. The ninth meeting of the Conference of Parties to the Convention on Biological Diversity (COP 9), held from 19 to 30 May 2008 in Bonn, Germany, made a remarkable step forward toward achieving 2012 MPA target. In its decision IX/20, COP 9 adopted the scientific criteria, as contained in annex I to this decision (Appendix 1), for identifying ecologically or biologically significant marine areas in need of protection, and the scientific guidance, contained in annex II to this decision (Appendix 2), for designing representative networks of marine protected areas, as recommended by the Expert Workshop on Ecological Criteria and Biogeographic Classification Systems for Marine Areas in Need of Protection, and requested the Executive Secretary to transmit the information contained in annex I and II to this decision to the relevant General Assembly processes. COP9 took note of the four initial steps to be considered in the development of representative networks of marine protected areas, in annex III to decision IX/20, as recommended by the Expert Workshop on Ecological Criteria and Biogeographic Classification Systems for Marine Areas in Need of Protection, and also requested the Executive Secretary to transmit this information, to the relevant United Nations General Assembly processes.

2. In the same decision, COP 9 urged Parties, and invited other Governments, and relevant organizations to apply, as appropriate, the scientific criteria (Appendix 1), the scientific guidance (Appendix 2), and initial steps (Appendix 3), to identify ecologically or biologically significant and/or vulnerable marine areas in need of protection, with a view to assist the relevant processes within the General Assembly and implement conservation and management measures, including the establishment of representative networks of marine protected areas in accordance with international law, including the United Nations Convention on the Law of the Sea, and recognizing that these criteria may require adaptation by Parties if they choose to apply them within their national jurisdiction noting that they will do so with regard to national policies and criteria.

3. COP 9 further decided to convene an expert workshop, including scientific and technical experts from different Parties, other Governments and relevant organizations, with balanced regional and sectoral participation and using the best available information and data at the time, in order to provide scientific and technical guidance on the use and further development of biogeographic classification systems, and guidance on the identification of areas beyond the national jurisdiction, which meet the scientific criteria (Appendix 1). The workshop will review and synthesize progress on the identification of areas beyond national jurisdiction which meet the scientific criteria (Appendix 1), and experience with the use of the biogeographic classification system, building upon a compilation of existing sectoral, regional and national efforts, and requested the Executive Secretary to transmit the results of this workshop to the 14th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice for its consideration prior to the tenth meeting of the Conference of Parties with a view to assisting the United Nations General Assembly. This workshop shall not consider issues relating to management and only provides scientific and technical information and guidance.

4. In this regard, COP 9 invited Parties, other Governments, and relevant organizations to provide relevant information concerning the objectives of the above-mentioned workshop and on the progress towards the 2012 target to the Executive Secretary for compilation and provision to the expert workshop.

5. In response to the above requests, the CBD Secretariat is convening, with financial support from the Governments of Canada and Germany, an expert workshop on scientific and technical guidance on the use of biogeographic classification systems and identification of marine areas beyond national jurisdiction in need of protection, in Ottawa, Canada from 29 September to 2 October 2009. To facilitate effective preparation for this expert workshop, the Secretariat is presently organizing an electronic forum (<http://www.cbd.int/marine/forums/>), inviting Parties, other Governments, and relevant organizations as well as relevant experts.

6. In the same decision, COP 9 invited Parties, other Governments and relevant organizations, including in the context of the United Nations Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction, to cooperate in further developing scientific and technical guidance for the implementation of environmental impact assessments and strategic environmental assessments for activities and processes under their jurisdiction and control which may have significant adverse impacts on marine biodiversity beyond national jurisdiction, taking into consideration the work of Food and Agriculture Organization of the United Nations, the International Maritime Organization, and other relevant organizations, with a view to ensuring such activities are regulated in such a way that they do not compromise ecosystem integrity, and to report to the Conference of the Parties at its tenth meeting on progress made in that regard. COP9 also noted the need for capacity-building for developing countries, in order to fully implement existing provisions of environmental impact assessment, as well as the challenges and difficulties in carrying out environmental impact assessment in areas beyond national jurisdiction.

7. Taking into account the relevant provisions of the United Nations Convention on the Law of the Sea and the Convention on Biological Diversity, COP 9 then decided to convene an expert workshop, including experts from different relevant organizations, with balanced regional and sectoral representation, to discuss scientific and technical aspects relevant to environmental impact assessment in areas beyond national jurisdiction with a view to contributing to the development of such scientific and technical guidance, building on ongoing relevant sectoral, regional and national environmental impact assessment efforts. In response to this request, the CBD Secretariat will convene an expert workshop in Manila, Philippines, from 18 to 20 November 2009.

8. In organizing the above-mentioned two expert workshops, the CBD Secretariat is closely collaborating with UN-Ocean members and other relevant organizations.

9. Furthermore, in response to requests made by COP 9, the Executive Secretary of the CBD is currently preparing three scientific synthesis reports as follows:

- a) compiling and synthesizing available scientific information on the impacts of destructive fishing practices, unsustainable fishing, and illegal, unreported, and unregulated (IUU) fishing on marine biodiversity and habitats in collaboration with UNEP, FAO, Parties and other relevant organizations;
- b) Compiling and synthesizing available scientific information on potential impacts of direct human-induced ocean fertilization on marine biodiversity in collaboration with UNEP-WCMC, IMO, IOC, Parties and other relevant organizations; and
- c) Compiling and synthesizing available scientific information on ocean acidification and its impacts on marine biodiversity and habitats, which is identified as a potentially serious threat to cold-water corals and other marine biodiversity in collaboration with UNEP-WCMC, IOC, Parties and other relevant organizations.

10. Global Forum will be duly invited to the peer-review process of the above-mentioned reports, before they are submitted to the forthcoming 14<sup>th</sup> meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, scheduled for May 2009.

11. The Executive Secretary is also preparing a background document for the in-depth review of the programme of work on marine and coastal biodiversity (annex I of decision VII/5), as called for by the COP in decision VII/31. The in-depth review will be undertaken at the tenth meeting of the COP, scheduled for October 2010. Global Forum will be also invited to the peer-review of the background document for in due course.

Appendix 1.

Annex I of CBD decision IX/20

**SCIENTIFIC CRITERIA FOR IDENTIFYING ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT MARINE AREAS IN NEED OF PROTECTION IN OPEN-OCEAN WATERS AND DEEP-SEA HABITATS <sup>1/</sup>**

Criteria	Definition	Rationale	Examples	Consideration in application
<b>Uniqueness or rarity</b>	Area contains either (i) unique (“the only one of its kind”), rare (occurs only in few locations) or endemic species, populations or communities, and/or (ii) unique, rare or distinct, habitats or ecosystems; and/or (iii) unique or unusual geomorphological or oceanographic features	<ul style="list-style-type: none"> <li>• Irreplaceable</li> <li>• Loss would mean the probable permanent disappearance of diversity or a feature, or reduction of the diversity at any level.</li> </ul>	<p><i>Open ocean waters</i> Sargasso Sea, Taylor column, persistent polynyas.</p> <p><i>Deep-sea habitats</i> endemic communities around submerged atolls; hydrothermal vents; sea mounts; pseudo-abyssal depression</p>	<ul style="list-style-type: none"> <li>• Risk of biased-view of the perceived uniqueness depending on the information availability</li> <li>• Scale dependency of features such that unique features at one scale may be typical at another, thus a global and regional perspective must be taken</li> </ul>
<b>Special importance for life-history stages of species</b>	Areas that are required for a population to survive and thrive.	Various biotic and abiotic conditions coupled with species-specific physiological constraints and preferences tend to make some parts of marine regions more suitable to particular life-stages and functions than other parts.	Area containing: (i) breeding grounds, spawning areas, nursery areas, juvenile habitat or other areas important for life history stages of species; or (ii) habitats of migratory species (feeding, wintering or resting areas, breeding, moulting, migratory routes).	<ul style="list-style-type: none"> <li>• Connectivity between life-history stages and linkages between areas: trophic interactions, physical transport, physical oceanography, life history of species</li> <li>• Sources for information include: e.g. remote sensing, satellite tracking, historical catch and by-catch data, vessel monitoring system (VMS) data.</li> <li>• Spatial and temporal distribution and/or aggregation of the species.</li> </ul>

<sup>1/</sup> Referred to in paragraph 1 of annex II to decision VIII/24.

Criteria	Definition	Rationale	Examples	Consideration in application
<b>Importance for threatened, endangered or declining species and/or habitats</b>	Area containing habitat for the survival and recovery of endangered, threatened, declining species or area with significant assemblages of such species.	To ensure the restoration and recovery of such species and habitats.	Areas critical for threatened, endangered or declining species and/or habitats, containing (i) breeding grounds, spawning areas, nursery areas, juvenile habitat or other areas important for life history stages of species; or (ii) habitats of migratory species (feeding, wintering or resting areas, breeding, moulting, migratory routes).	<ul style="list-style-type: none"> <li>• Includes species with very large geographic ranges.</li> <li>• In many cases recovery will require reestablishment of the species in areas of its historic range.</li> <li>• Sources for information include: e.g. remote sensing, satellite tracking, historical catch and by-catch data, vessel monitoring system (VMS) data.</li> </ul>
<b>Vulnerability, fragility, sensitivity, or slow recovery</b>	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.	The criteria indicate the degree of risk that will be incurred if human activities or natural events in the area or component cannot be managed effectively, or are pursued at an unsustainable rate.	<i>Vulnerability of species</i> <ul style="list-style-type: none"> <li>• Inferred from the history of how species or populations in other similar areas responded to perturbations.</li> <li>• Species of low fecundity, slow growth, long time to sexual maturity, longevity (e.g. sharks, etc).</li> <li>• Species with structures providing biogenic habitats, such as deepwater corals, sponges and</li> </ul>	<ul style="list-style-type: none"> <li>• Interactions between vulnerability to human impacts and natural events</li> <li>• Existing definition emphasizes site specific ideas and requires consideration for highly mobile species</li> <li>• Criteria can be used both in its own right and in conjunction with other criteria.</li> </ul>

Criteria	Definition	Rationale	Examples	Consideration in application
			bryozoans; deep-water species. <i>Vulnerability of habitats</i> <ul style="list-style-type: none"> <li>• Ice-covered areas susceptible to ship-based pollution.</li> <li>• Ocean acidification can make deep-sea habitats more vulnerable to others, and increase susceptibility to human-induced changes.</li> </ul>	
<b>Biological productivity</b>	Area containing species, populations or communities with comparatively higher natural biological productivity.	Important role in fuelling ecosystems and increasing the growth rates of organisms and their capacity for reproduction	<ul style="list-style-type: none"> <li>• Frontal areas</li> <li>• Upwellings</li> <li>• Hydrothermal vents</li> <li>• Seamounts polynyas</li> </ul>	<ul style="list-style-type: none"> <li>• Can be measured as the rate of growth of marine organisms and their populations, either through the fixation of inorganic carbon by photosynthesis, chemosynthesis, or through the ingestion of prey, dissolved organic matter or particulate organic matter</li> <li>• Can be inferred from remote-sensed products, e.g., ocean colour or process-based models</li> <li>• Time-series fisheries data can be used, but caution is required</li> </ul>

<b>Criteria</b>	<b>Definition</b>	<b>Rationale</b>	<b>Examples</b>	<b>Consideration in application</b>
<b>Biological diversity</b>	Area contains comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher genetic diversity.	Important for evolution and maintaining the resilience of marine species and ecosystems	<ul style="list-style-type: none"> <li>• Sea-mounts</li> <li>• Fronts and convergence zones</li> <li>• Cold coral communities</li> <li>• Deep-water sponge communities</li> </ul>	<ul style="list-style-type: none"> <li>• Diversity needs to be seen in relation to the surrounding environment</li> <li>• Diversity indices are indifferent to species substitutions</li> <li>• Diversity indices are indifferent to which species may be contributing to the value of the index, and hence would not pick up areas important to species of special concern, such as endangered species</li> <li>• Can be inferred from habitat heterogeneity or diversity as a surrogate for species diversity in areas where biodiversity has not been sampled intensively.</li> </ul>
<b>Naturalness</b>	Area with a comparatively higher degree of naturalness as a result of the lack of or low level of human-induced disturbance or degradation.	<ul style="list-style-type: none"> <li>• To protect areas with near natural structure, processes and functions</li> <li>• To maintain these areas as reference sites</li> <li>• To safeguard and enhance ecosystem resilience</li> </ul>	Most ecosystems and habitats have examples with varying levels of naturalness, and the intent is that the more natural examples should be selected.	<ul style="list-style-type: none"> <li>• Priority should be given to areas having a low level of disturbance relative to their surroundings</li> <li>• In areas where no natural areas remain, areas that have successfully recovered, including reestablishment of species, should be considered.</li> <li>• Criteria can be used both in their own right and in conjunction with other criteria.</li> </ul>

Appendix 2.

Annex II of CBD decision IX/20

**SCIENTIFIC GUIDANCE FOR SELECTING AREAS TO ESTABLISH A REPRESENTATIVE NETWORK OF MARINE PROTECTED AREAS, INCLUDING IN OPEN OCEAN WATERS AND DEEP-SEA HABITATS <sup>2/</sup>**

<b>Required network properties and components</b>	<b>Definition</b>	<b>Applicable site specific considerations (<i>inter alia</i>)</b>
Ecologically and biologically significant areas	Ecologically and biologically significant areas are geographically or oceanographically discrete areas that provide important services to one or more species/populations of an ecosystem or to the ecosystem as a whole, compared to other surrounding areas or areas of similar ecological characteristics, or otherwise meet the criteria as identified in annex I to decision IX/20.	<ul style="list-style-type: none"> <li>• Uniqueness or rarity</li> <li>• Special importance for life history stages of species</li> <li>• Importance for threatened, endangered or declining species and/or habitats</li> <li>• Vulnerability, fragility, sensitivity or slow recovery</li> <li>• Biological productivity</li> <li>• Biological diversity</li> <li>• Naturalness</li> </ul>
Representativity	Representativity is captured in a network when it consists of areas representing the different biogeographical subdivisions of the global oceans and regional seas that reasonably reflect the full range of ecosystems, including the biotic and habitat diversity of those marine ecosystems.	A full range of examples across a biogeographic habitat, or community classification; relative health of species and communities; relative intactness of habitat(s); naturalness
Connectivity	Connectivity in the design of a network allows for linkages whereby protected sites benefit from larval and/or species exchanges, and functional linkages from other network sites. In a connected network individual sites benefit one another.	Currents; gyres; physical bottlenecks; migration routes; species dispersal; detritus; functional linkages. Isolated sites, such as isolated seamount communities, may also be included.
Replicated ecological features	Replication of ecological features means that more than one site shall contain examples of a given feature in the given biogeographic area. The term “features” means “species, habitats and ecological processes” that naturally occur in the given biogeographic area.	Accounting for uncertainty, natural variation and the possibility of catastrophic events. Features that exhibit less natural variation or are precisely defined may require less replication than features that are inherently highly variable or are only very generally defined.
Adequate and viable sites	Adequate and viable sites indicate that all sites within a network should have size and protection sufficient to ensure the ecological viability and integrity of the feature(s) for which they were selected.	Adequacy and viability will depend on size; shape; buffers; persistence of features; threats; surrounding environment (context); physical constraints; scale of features/processes; spillover/compactness.

<sup>2/</sup> Referred to in paragraph 3 of annex II of decision VIII/24

### Appendix 3.

#### *Annex III of CBD decision IX/20*

#### **FOUR INITIAL STEPS TO BE CONSIDERED IN THE DEVELOPMENT OF REPRESENTATIVE NETWORKS OF MARINE PROTECTED AREAS:**

1. *Scientific identification of an initial set of ecologically or biologically significant areas.* The criteria in annex I to decision IX/20 should be used, considering the best scientific information available, and applying the precautionary approach. This identification should focus on developing an initial set of sites already recognized for their ecological values, with the understanding that other sites could be added as more information becomes available.
2. *Develop/choose a biogeographic, habitat, and/or community classification system.* This system should reflect the scale of the application and address the key ecological features within the area. This step will entail a separation of at least two realms—pelagic and benthic.
3. *Drawing upon steps 1 and 2 above, iteratively use qualitative and/or quantitative techniques to identify sites to include in a network.* Their selection for consideration of enhanced management should reflect their recognised ecological importance or vulnerability, and address the requirements of ecological coherence through representativity, connectivity, and replication.
4. *Assess the adequacy and viability of the selected sites.* Consideration should be given to their size, shape, boundaries, buffering, and appropriateness of the site-management regime.

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