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Item 5.1 of the provisional agenda*

INLAND WATER ECOSYSTEMS: REVIEW, FURTHER ELABORATION AND REFINEMENT OF THE PROGRAMME OF WORK

Provision of scientific advice and further guidance to assist in the national elaboration of Annex I of the Convention, as pertaining to inland water ecosystems: options for national elaboration of the indicative list of categories of components of inland water biological diversity important for its conservation and sustainable use

Note by the Executive Secretary

EXECUTIVE SUMMARY

In paragraphs 9 (e) (iv) and 12 of the programme of work on biological diversity of inland water ecosystems annexed to its decision IV/4, the Conference of the Parties to the Convention on Biological Diversity advised Parties to prepare indicative lists of inland water ecosystems, using the criteria set out in annex I to the Convention, and requested the Executive Secretary and the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to work closely with the Ramsar Convention to achieve desirable convergence between approaches on criteria and classification of inland water ecosystems in the framework of the two conventions.

The present note is a summary of an information document [M1] prepared in collaboration with the Ramsar Bureau for the eighth meeting of SBSTTA, in which the Executive Secretary proposes options for a classification system for inland water ecosystems and further elaboration of criteria for identifying inland waters ecosystems or habitats important for the objectives of the Convention on Biological Diversity that Parties to the Convention can use to prepare their list of inland water ecosystems.

* UNEP/CBD/SBSTTA/8/1.

SUGGESTED RECOMMENDATIONS

The suggested recommendations regarding classification systems and criteria for the identification of important inland water biodiversity are included in the consolidated suggested recommendations under item 5.1 as contained in the note by the Executive Secretary on elements for the further elaboration and refinement of the programme of work (UNEP/CBD/SBSTTA/8/8/Add.2).

CONTENTS

	<i>Page</i>
SUGGESTED RECOMMENDATIONS	2
I. POSSIBLE CLASSIFICATION SYSTEMS FOR INLAND WATER ECOSYSTEMS IN THE FRAMEWORK OF THE CONVENTION ON BIOLOGICAL DIVERSITY	4
II. PROPOSAL FOR NATIONAL ELABORATION OF ANNEX I OF THE CONVENTION, AS PERTAINING TO INLAND WATER ECOSYSTEMS	5
A. Categories in Annex I to the Convention on Biological Diversity fully addressed by Ramsar criteria and guidelines	5
B. Categories in Annex I to the Convention on Biological Diversity partly addressed by Ramsar guidelines	6
C. Categories in Annex I to the Convention on Biological Diversity not addressed yet or sufficiently by Ramsar criteria and guidelines	6
D. Some general conclusions	7

I. POSSIBLE CLASSIFICATION SYSTEMS FOR INLAND WATER ECOSYSTEMS IN THE FRAMEWORK OF THE CONVENTION ON BIOLOGICAL DIVERSITY

1. Classifications are necessary, *inter alia*, for mapping and inventory purposes and for organizing ecosystems/habitats into systems that will aid decision-making about resource management. Unlike the Ramsar Convention, the Convention on Biological Diversity does not have a classification system for inland water ecosystems or habitats. There also exist a number of national, regional and international systems of wetlands classification. ^{1/} Taking into account that the Ramsar Convention definition of “wetlands” includes categories of inland water ecosystems, and that no single classification is likely to meet all needs of different wetland inventories at the country level, these national, regional and international systems and the Ramsar classification system can both be considered for possible use for inland water ecosystems in the framework of the Convention on Biological Diversity.

2. The Ramsar classification is a global system adopted in 1990 through Ramsar recommendation 4.7 and subsequently amended in 1999 through resolution VI.5 of the Conference of the Parties to the Ramsar Convention, to provide Parties with a simple basis for describing wetlands of international importance “on account of their international significance in terms of ecology, botany, zoology, limnology or hydrology” (Article 2.2 of the Ramsar Convention) and to enable them to formulate and implement their planning so as to promote in their respective territories the conservation and, as far as possible, the wise use of the wetlands included in the Ramsar List of Wetlands of International Importance (Article 3.1 of the Ramsar Convention). In addition, the system harmonizes classifications and inventories of transboundary ecosystems/habitats. It consists of three main wetland habitats, namely: marine and coastal; inland; and human-made wetlands. These categories are further subdivided into a total of 42 wetland types. Although the Ramsar classification system is a global system that was developed for wetlands of international importance, it is currently being used increasingly as a classification basis for national wetland inventories. ^{2/}

3. National and regional wetland classifications ^{3/} have been developed in response to different needs. They take into account the main biophysical features (generally vegetation, landform and water regime, sometimes also water chemistry such as salinity) and the variety and size of wetlands in the locality or region being considered.

4. For a classification of inland water ecosystems within the context of the implementation of Article 7 of the Convention on Biological Diversity, the following options are proposed:

(a) *Option I.* Apply at the national level the Ramsar classification system for wetlands of international importance, excluding the marine and coastal category, which, in the context of the Convention on Biological Diversity, falls under the programme of work on marine and coastal biodiversity. It should be noted, however, that there is not always a rigid dividing line between an inland aquatic and a marine habitat. The main advantage of this approach is the adoption and adaptation of a system that is widely in use. However, its usefulness for any specific wetland inventory should be carefully assessed and there may be a need to accommodate description of additional categories of habitats in the form and level of description that are now commonly included in many wetland/inland water ecosystem inventories;

^{1/} See, for example, the review “Classification and Inventory of the World's Wetlands” edited by C. Max Finlayson, and A.G. van der Valk, in *Advances in Vegetation Science* 16, *Reprinted from VEGETATIO* 118:1-2 (1995)

^{2/} See the draft resolution on framework for wetland inventory, developed in response to resolution VII.20 (http://www.ramsar.org/cop8_dr_06_e.htm)

^{3/} Ibid., appendix IV.

(b) *Option II.* Adopt a classification system consisting of the following categories: underground water, riverine, lagoonal, lacustrine, palustrine, estuarine, and human-made categories. An advantage of this system is that it can be further elaborated to lower hierarchical levels (see, for example, option III below) and it provides a possibility for an inventory at a higher and more flexible level than the current Ramsar classification system;

(c) *Option III.* Adopt option II with the different classes of the Ramsar classification system as the lower level, i.e., Y, Zg, and Zk(b) for underground water systems; M and N for riverine systems; Q, R, Sp and Ss for lagoonal systems; O and P for lacustrine systems; Tp, Ts, U, Va, Zf, Vt and W for palustrine systems; L for estuarine systems; and 1-9 and Zk(c) for the various types of human-made systems; ^{4/}.

(d) *Option IV.* Adopt one or a combination of the above options (a) to (c) also taking into account the national and regional classification systems so as to respond better to local or national requirements. A drawback of this option is that multiple systems may be used within the same State or a given region, which might not facilitate the compilation of information for integrated planning activities, or the exchange of information and experiences.

II. PROPOSAL FOR NATIONAL ELABORATION OF ANNEX I OF THE CONVENTION, AS PERTAINING TO INLAND WATER ECOSYSTEMS

5. With a view to elaborating annex I of the Convention, as pertaining to inland water ecosystems, for use at the national level, and achieving convergence with the Ramsar criteria and guidelines for wetlands of international importance, the Executive Secretary has considered the scope of each of the criteria in Annex I of the Convention on Biological Diversity and assessed whether the Ramsar criteria ^{5/} and guidelines, ^{6/} address the criteria under the Convention on Biological Diversity fully, partly or not at all. In doing so, the Executive Secretary intended to recommend using the Ramsar criteria and guidelines for each criterion that they fully address, and that additional criteria and/or guidelines be developed for those criteria not addressed or only partly by the Ramsar criteria and guidelines.

6. It should be noted that there is a difference intended in the geographic context within which the two conventions assess “importance”. The Ramsar context is explicitly “international”, using internationally agreed criteria applied nationally but with international expert peer-review. The context of the Convention on Biological Diversity is primarily national. It uses general assessment factors agreed internationally that can be elaborated nationally and applied nationally without peer-review. There would be benefit if the two sets of criteria could be made consistent by using the same sets of factors but setting higher threshold test for international importance. This would need to take into account local differences.

A. Categories in Annex I to the Convention on Biological Diversity fully addressed by Ramsar criteria and guidelines

7. Inland water ecosystems or habitats that are important for conservation and sustainable use because they are representative and unique can be identified using Ramsar criterion 1, which addresses

^{4/} See the Ramsar classification system as appendix A to the Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands adopted by Ramsar resolution VII.11 (http://www.ramsar.org/key_guide_list_e.htm)

^{5/} Adopted by the Conference of the Contracting Parties at its seventh meeting, in 1999

^{6/} Chapter V of the Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance (see note 4 above).

representativity and uniqueness of wetlands with a focus on those wetlands that are representative of natural or near natural wetland, characteristic of the appropriate biogeographical region; or common to more than one biogeographical region; or with a specific role in the natural functioning of a major river basin or coastal system. To some extent, criterion 7 also refers to representativity of benefits and value of wetland. It should also be noted that possession of outstanding attributes regarding the other criteria listed in Annex I of the Convention will qualify for uniqueness.

B. *Categories in Annex I to the Convention on Biological Diversity partly addressed by Ramsar guidelines*

8. Inland water ecosystems or habitats that are important for conservation and sustainable use because they contain high diversity, large numbers of endemic species, large numbers of threatened species, wilderness, and are required by migratory species and are associated with key evolutionary or other biological processes are addressed by Ramsar criteria 1, 2, 3, 7 and 8 and the IUCN Red List categories.

9. The guidelines for these criteria are based on waterfowl and fish because they are the most abundant vertebrates associated with wetlands. However, in some inland water ecosystems, waterfowl and fish may not be the most abundant organisms or most representative of inland water benefits and/or value. Thus, in the framework of the Convention, it may be desirable to expand the guidelines for the application of these criteria to include other taxa, which will be identified on the basis of local considerations of the benefits and value of the given inland water ecosystem, including populations of taxonomic groups with wetland-dependent species, such as amphibians and wild relatives of domesticated and cultivated species.

10. In addition, the IUCN Red List categories and their quantitative criteria should be taken into account in the development of the criteria relating to threatened species and populations in Annex I of the Convention. Although, the IUCN Red List categories and criteria are intended to be a system for classifying species at high risk of global extinction, many people are interested in applying them to subsets of global data, especially at regional, national or local levels. To do this it is important to refer to guidelines prepared by the IUCN/SSC Regional Applications Working Group.^{7/} When applied at national or regional levels it must be recognized that a global category may not be the same as a national or regional category for a particular taxon. With regard to wild relatives, the *Biodiversity Data Sourcebook* published by the World Conservation Monitoring Centre can be used as a starting point for identifying priority wild relatives of domestic stock and crops. The appendices to the Convention on Migratory Species are the most suitable available starting point for lists of migratory species.

11. The terms “high diversity” and “large numbers” are not defined in the Convention and should be described in the guidelines, together with the concepts of key evolutionary processes and wilderness, the latter being often equated with naturalness, while this may often not be the case.

C. *Categories in Annex I to the Convention on Biological Diversity not addressed yet or sufficiently by Ramsar criteria and guidelines*

12. Inland water ecosystems or habitats that are important for conservation and sustainable use because they are of social, economic, cultural or scientific importance are only indirectly addressed by the Ramsar criteria and guidelines.

^{7/} See Gärdenfors, U., Hilton-Taylor, C., Mace, G. and Rodríguez, J.P. 2001. The application of IUCN Red List Criteria at regional levels. *Conservation Biology* 15: 1206–1212; and <http://www.iucn.org/themes/ssc/redlists/redlistcatsenglish.pdf>

13. Ramsar criteria and guidelines for identifying wetlands of international importance do not contain explicit criteria for so designating wetlands on the basis of their socio-economic and cultural importance. However, socio-economic and cultural issues have been incorporated to some extent in the guidelines on the application of the existing criteria (for example criteria 1, 7 and 8) and in the guidelines on management planning. Socio-economic importance is chiefly seen in relation to hydrological values and functions. In the context of biodiversity, guidelines should include, *inter alia*, reference to species of medicinal and agricultural value and wild relatives of domesticated and cultivated species, and genomes and genes of social, scientific and economic importance. The issue of the cultural importance of wetlands has been put forward for discussion at the eighth meeting of the Conference of the Contracting Parties to the Ramsar Convention.

D. Some general conclusions

14. The criteria used by the Ramsar Convention to determine “importance” are a combination of both explicit criteria with objective thresholds (e.g., 20,000 waterfowl) and, as is the case with the list of categories in Annex I of the Convention on Biological Diversity, general factors to be considered using expert judgement. Without quantitative criteria, there is often disagreement about whether the criteria are met. Terms like “high diversity”, “large numbers” and “wilderness” require further elaboration.

15. In addition, little guidance is provided about choosing a consistent geographical scale at which the criteria should be applied.

16. Annex I of the Convention on Biological Diversity provides criteria at the species or community and gene or genome levels for the identification of components of biodiversity important for its conservation and sustainable use. Ramsar criteria do not address directly elements for the identification of biodiversity components at species or community and genetic levels, their purpose being the identification of wetland habitats or ecosystems of international importance. At the ecosystem and habitat levels, they cover most of the categories in Annex I of the Convention on Biological Diversity except for the social, economic and cultural aspects. In order to ensure that ecosystems and habitats important for their biodiversity are identified, it is necessary to expand the current Ramsar guidelines to include taxa other than fish and waterfowl, and include important inland waters harbouring wild relatives of domesticated or cultivated species; species or communities and genomes or genes of economic, social, scientific or cultural importance; species or communities that are important for research into the conservation and sustainable use of biological diversity including indicators of ecosystem health and integrity; and wetlands that support important populations of taxonomic groups with wetland-dependent species, including, *inter alia*, amphibians.
