

Agenda item 6.1 v)

**Background materials concerning further development of  
guidance related to managing and monitoring Ramsar sites**

1. Attached to this note are the COP8 Resolutions and Information papers on issues related to the further development of guidance on managing and monitoring Ramsar sites:
  - i) COP8 Resolution VIII.14 “New Guidelines for management planning for Ramsar sites and other wetlands”;
  - ii) COP8 Resolution VIII.19 “Guiding principles for taking into account the cultural values of wetlands for the effective management of sites”;
  - iii) COP8 Resolution VIII.15 “The San Jose Record” for the promotion of wetland management”;
  - iv) COP8 Resolution VIII.8 “Assessing and reporting the status and trends of wetlands, and the implementation of Article 3.2 of the Convention”;
  - v) COP8 DOC. 20 Information paper “Assessing and reporting the status and trends of wetlands, and the implementation of Article 3.2 of the Convention concerning change in the ecological character of Ramsar sites”.
2. These materials provide the background to a number of the high priority (and other) tasks requested of the Panel for 2003-2005 concerning the preparation of further guidance on the Ramsar site management and monitoring. Resolution VIII.7 (available in DOC. STRP11-9) also provides background to certain tasks in this high priority area of work.
3. The STRP is requested to familiarize itself with the contents of these materials, as the basis for preparing its Work Plan activities on these matters.

**"Wetlands: water, life, and culture"**  
**8th Meeting of the Conference of the Contracting Parties**  
**to the Convention on Wetlands (Ramsar, Iran, 1971)**  
**Valencia, Spain, 18-26 November 2002**

## **Resolution VIII.14**

### **New Guidelines for management planning for Ramsar sites and other wetlands**

1. TAKING INTO ACCOUNT Article 3.1 of the Convention, which specifies that “Contracting Parties shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List [of wetlands of international importance]”;
2. ALSO TAKING INTO ACCOUNT Article 3.2, which provides that “each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change” and that “information on such changes shall be passed without delay” to the Ramsar Bureau;
3. RECALLING Resolution 5.7, which adopted *Guidelines on management planning for Ramsar sites and other wetlands*; Recommendation 6.13, which called upon the Scientific and Technical Review Panel (STRP) to review the most recent advances in this area; and Resolution VII.12, which reaffirmed the continuing value of these Guidelines;
4. FURTHER RECALLING that in Resolution VII.12 the Contracting Parties instructed the STRP, with support from the Ramsar Bureau, to prepare for consideration at COP8 further guidance with respect to management planning, which reviews the latest approaches to environmental, social and economic impact assessment and cost-benefit analysis, zonation and multiple use, design and maintenance of buffer zones, and the application of the precautionary approach;
5. HAVING BEEN INFORMED that in preparing the further guidance called for in Resolution VII.12, the STRP determined that, to ensure that the overall management planning guidance available to Contracting Parties would reflect recent advances in this area and yet remain coherent and easy to follow, a full revision of the Guidelines as adopted by Resolution 5.7 would be necessary;
6. NOTING that in Resolution VII.12, the Contracting Parties also urged that, by COP8 in 2002, management plans should be in preparation, or in place, for at least three quarters of the Ramsar sites in each Contracting Party and that these plans, once in place, should be implemented in full; and FURTHER NOTING the indications provided in the National Reports for this meeting of the Conference of the Parties that this is the case for at least 397 Ramsar sites, or 35 per cent of those included in the Ramsar List;

7. RECOGNIZING that the establishment and implementation of a management plan for a Ramsar site or other wetland is part of an integrated management planning process which helps to decide upon the objectives of site management; identify and describe the management actions required to achieve the objectives; determine the factors that affect, or may affect, the various site features; define monitoring requirements for detecting changes in ecological character and for measuring the effectiveness of management; demonstrate that management is effective and efficient; maintain continuity of effective management; resolve any conflicts of interest; obtain resources for management implementation; enable communication within and between sites, organizations and stakeholders; and ensure compliance with local, national and international policies; and
8. AWARE that the Joint Programme of Work 2002-2003 between the Ramsar Bureau and UNESCO's Man and the Biosphere Programme (MAB) includes actions to review, and as far as possible to harmonize, management planning guidance, including inventory, assessment, monitoring and zonation for Ramsar sites and Biosphere Reserves;

#### THE CONFERENCE OF THE CONTRACTING PARTIES

9. ADOPTS the *New Guidelines for management planning for Ramsar sites and other wetlands*, as annexed to this Resolution;
10. STRONGLY URGES Contracting Parties to apply the New Guidelines to establish and implement management planning processes, particularly for those Ramsar sites within their territory that do not yet have such processes and plans in place;
11. RECOGNIZES that other management planning processes exist, especially where other designations apply to the same areas that are listed as Ramsar sites, and that these may be valid alternatives for delivering management planning where such approaches adequately and fully implement clearly stated conservation objectives to ensure the conservation and wise use of these wetlands;
12. REQUESTS the Ramsar Bureau to develop a field guide for the practical application of the guidelines, recognizing that there may be circumstances that limit the application of the guidelines in full;
13. NOTES that these guidelines recommend that the management and planning processes include regular review and revision of the management plan, and URGES Contracting Parties to apply the New Guidelines when reviewing and updating existing management plans for Ramsar sites and other wetlands;
14. ENCOURAGES Contracting Parties to utilize all the available Ramsar tools and guidance to assist in their management planning processes, including *inter alia* the description and maintenance of ecological character and designing a monitoring programme (Resolution VI.1), the wetland risk assessment and indicators (Resolution VII.10), the guidance on impact assessment (Resolution VIII.9) and on wetland restoration, including identification of sites appropriate for restoration (Resolution VIII.16), and the *Guidelines for Global Action on Peatlands* (Resolution VIII.17);
15. REQUESTS the Ramsar Bureau to transmit the *New Guidelines for management planning for Ramsar sites and other wetlands* to the Convention on Biological Diversity (CBD), the World

Heritage Convention, the Convention on Migratory Species (CMS) and the African-Eurasian Migratory Waterbird Agreement (AEWA), Eurosite, and other agreements and organizations concerned with the management of wetland ecosystems, particularly with regard to management planning processes for sites of common interest;

16. REQUESTS the Scientific and Technical Review Panel (STRP), assisted by the Ramsar Bureau and in cooperation with the MAB Programme, the CBD, and other relevant organizations, to review and prepare further guidance on zonation and monitoring programmes and methodologies for Ramsar sites and other wetlands, including indicators and rapid assessment methodologies and the use of remote sensing;
17. RECOMMENDS that Contracting Parties, when planning the management of Ramsar sites and other wetlands, should take into account the wider management implications of activities within river basins and other catchments, applying Resolution VII.18 on *Guidelines for integrating wetland conservation and wise use into river basin management* (Ramsar Handbook no. 4), as well as the guidance adopted by this meeting on integrated coastal zone management (Resolution VIII.4) and on the allocation and management of water for maintaining the ecological functions of wetlands (Resolution VIII.1);
18. URGES Contracting Parties to take note of the emphasis in the *New Guidelines for management planning for Ramsar sites and other wetlands* on ensuring the full involvement of all stakeholders in all stages of the management planning process, and to utilize the guidelines adopted by Resolution VII.8 on *Establishing and strengthening local communities' and indigenous peoples' participation in the management of wetlands* (Ramsar Handbook no. 5) and the guiding principles on cultural aspects of wetlands annexed to Resolution VIII.19 to assist in this process;
19. NOTES that the *New Guidelines for management planning for Ramsar sites and other wetlands* will, *inter alia*, form the basis of the criteria for the acceptance of sites onto the "San José Record" for the promotion of wetland management adopted by this meeting of the Conference of the Parties (Resolution VIII.15); and
20. STRONGLY URGES Contracting Parties to utilize the management planning process and the *New Guidelines for management planning for Ramsar sites and other wetlands* to establish for each site on the Ramsar List a monitoring programme, including indicators of ecological character features, and to put into place national mechanisms so as to be informed when the ecological character of a site has changed, is changing, or is likely to change, and FURTHER URGES Contracting Parties to report such matters, without delay, to the Ramsar Bureau in accordance with Article 3.2 of the Convention.

## Annex

### New Guidelines for management planning for Ramsar sites and other wetlands

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#### I. Introduction

1. These Guidelines replace the Ramsar *Guidelines on management planning for Ramsar sites and other wetlands* adopted by Resolution 5.7 of COP5 in 1993 and published in Ramsar Handbook 8 (January 2000). They provide additional guidance on environmental, social and economic impact assessment and cost-benefit analysis, zonation and multiple use, design and maintenance of buffer zones, and the application of the precautionary approach.
2. The guidelines are relevant to the requirements of the Convention concerning the conservation of wetlands included in the List of Wetlands of International Importance and the wise use of all wetlands in the territory of Contracting Parties (Article 3 of the Convention), as well as the establishment of nature reserves (protected areas) at wetlands, whether or not they are included in the Ramsar List (Article 4.1).
3. These guidelines focus on the site-based scale of management planning. It is recognized, however, that designated Ramsar sites include a wide range of different applications of 'site' since they range in size from less than 1 hectare to over 6 million hectares, and that whilst some have boundaries delimiting just a discrete wetland area, others include surrounding non-wetland buffer zones, habitat mosaics, or catchment areas within their boundaries. It is therefore recognized that the application of these guidelines will need to

be flexible, depending upon the particular characteristics and circumstances of each Ramsar site or other wetland.

4. Ramsar site management plans should be integrated into the public development planning system at local, regional or national level. The integration of site management plans into spatial and economic planning at the appropriate level will ensure implementation, public participation and local ownership. Furthermore, integration will enhance the possibility of local as well as external funding.
5. The guidelines also recognize that site-based management planning should be one element of a multi-scalar approach to wise use planning and management and should be linked with broad-scale landscape and ecosystem planning, including at the integrated river basin and coastal zone scales, because policy and planning decisions at these scales will affect the conservation and wise use of wetland sites.
6. These new guidelines place further emphasis on the role of a management plan as part of an overall management planning process and provide additional advice on incorporating good practice in management planning, including adaptable management, outcomes, quantified objectives, and integrated monitoring.

## II. General guidelines

7. Wetlands are dynamic areas, open to influence from natural and human factors. In order to maintain their biological diversity and productivity (i.e., their 'ecological character' as defined by the Convention<sup>1</sup>), and to permit the wise use of their resources by people, an overall agreement is essential between the various managers, owners, occupiers and other stakeholders. The management planning process provides the mechanism to achieve this agreement.
8. The management plan itself should be a technical document, though it may be appropriate for it to be supported by legislation and in some circumstances to be adopted as a legal document.
9. The management plan is part of a dynamic and continuing management planning process. The plan should be kept under review and adjusted to take into account the monitoring process, changing priorities, and emerging issues.
10. An authority should be appointed to implement the management planning process, and this authority should be clearly identified to all stakeholders. This is particularly important on a large site where there is a need to take account of all interests, users, and pressures on the wetland, in a complex ownership and management situation.
11. Although conditions vary at individual wetlands, these guidelines may be applied worldwide. The guidelines provide a conceptual background to, and framework for, wetland management planning and an outline of the main sections of a management plan.

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<sup>1</sup> The **ecological character** of a wetland is "the sum of the individual biological, physical, and chemical components of the wetland ecosystem, and their interactions, which maintain the wetland and its products, functions, and attributes" (Resolution VII.10).

It is emphasized that the guidelines do not provide a prescription for the detailed contents of a complete management plan itself, which will be a much more detailed document and should be prepared at regional or local level.

12. A management plan, and the management planning process, should only be as large or complex as the site requires. The production of a large, elaborate and expensive plan will not be possible, and certainly not justifiable, for many sites. The size of a plan, and (perhaps more importantly) the resources made available for its production, must be in proportion to the size and complexity of the site, and also to the total resources available for the safeguarding and/or management of the site. Thus for small uncomplicated sites, brief, concise plans will suffice. For large or zoned sites, it may be appropriate to develop separate detailed plans for different sections of the site, within an overall statement of objectives for the whole site.
13. Often management planning should not be restricted to the defined site boundary, but rather should also take into account the wider context of planning and management, notably in the basin or coastal zone within which the site is located, which can be transboundary in nature. It is important to ensure that the site planning takes into account the external natural and human-induced factors and their influence on the site, and also to ensure that the management objectives for a site are taken into account in the wider planning processes. For further guidance see Ramsar's *Guidelines for integrating wetland conservation and wise use into river basin management* (Ramsar Handbook 4); the *Principles and guidelines for incorporating wetland issues into integrated coastal zone management (ICZM)* (Resolution VIII.4); and *Guidelines for international cooperation under the Ramsar Convention on Wetlands* (Ramsar Handbook 9) concerning transboundary wetlands. The link between site-based and wider-scale management is further elaborated in the following section.

### **III. Integrating wetland site management within broad-scale environmental management planning, including river basin and coastal zone management**

14. It is the permanent presence of water in wetlands, or at least for some significant period of time, that creates the soils, micro-organisms, and plant and animal communities such that the land functions in a different way from terrestrial habitats. Wetland ecosystems are adapted to the hydrological regime and are vulnerable to change. For most wetlands, direct rainfall provides only a small proportion of the water regime, with the primary source being rivers or aquifers. Similarly, wetlands in the coastal zone are influenced by the quantity and quality of freshwater flowing into them from rivers and other land-based discharges and of oceanic and marine waters from further offshore.
15. Successful management of wetland sites therefore requires maintenance of these sources of water. The inter-connectedness of the hydrological cycle means that changes some distance from the wetland can have a detrimental impact. Insufficient water reaching wetlands, due to climate change, land use change, abstractions, storage and diversion of water for public supply, agriculture, industry and hydropower, are all major causes of wetland loss and degradation. A key requirement for wetland conservation and wise use is to ensure that adequate water of the right quality is allocated to wetlands at the right time. For further information, see the *Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands* (Resolution VIII.1).

16. The fundamental unit for water issues is normally the river basin (or catchment), as this demarcates a hydrological system in which components and processes are linked by water movement. The river basin will normally include a mosaic of different land types, including wetlands, forests, grasslands, agricultural and urban areas. The term 'integrated river basin management' (IRBM) has developed into a broad concept that takes a holistic approach (see Ramsar Wise Use Handbook 4, *Integrating wetland conservation and wise use into river basin management*).
17. However, it is important to recognize that in some cases the river basin within which the wetland lies may not be the most appropriate unit for wider-scale planning. This is when groundwater plays a significant role in supplying water to a wetland, since the underlying aquifer does not always coincide with the surface river basin. If this is the case, more than one basin overlying the aquifer may constitute the appropriate unit of water resource management. It is therefore important to establish the hydrological relationships between the wetland and its sources of surface and ground water as the basis for appropriate site-based management planning.
18. Integrated River Basin Management is complementary to Integrated Water Resource Management (IWRM), which has come to the fore as a strategy proposed in Chapter 18 of Agenda 21 to implement the Dublin Principles<sup>2</sup>. Agenda 21 affirms that "Such integration must cover all types of interrelated freshwater bodies, including both surface water and groundwater, and duly consider water quantity and quality aspects. The multisectoral nature of water resources development in the context of socio-economic development must be recognized, as well as the multi-interest utilization of water resources for water supply and sanitation, agriculture, industry, urban development, hydropower generation, inland fisheries, transportation, recreation, low and flat lands management and other activities."
19. A key element of IWRM is that river basins are usually the most appropriate physical entity in which to plan the management of water. The concept of Ecosystem Management has broad similarities with IRBM, where the ecosystem boundary is synonymous with the river basin boundary, but in which the focus is on maintaining ecosystem functioning.
20. The aim of Integrated River Basin Management or Integrated Water Resource Management is to bring together stakeholders at all levels, from politicians to local communities, and to consider water demands for different sectors within the basin<sup>3</sup>. Achieving adequate allocation of water to wetlands requires that the water needs of the wetland, including those in the estuary and coast, are defined and communicated to other stakeholders. It is also essential that the benefits of wetlands, such as their hydrological and ecological functions and their provision of goods and services, are determined in order to justify the required allocation.
21. The ease with which adequate water allocation for wetlands can be achieved will depend upon the legislative drivers. Some states will have legislation regarding allocation of water to the environment, such as South Africa's Water Law or the European Union's Habitats

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<sup>2</sup> The Dublin Principles were adopted by the 1992 Dublin International Conference on Water and the Environment.

<sup>3</sup> See Ramsar Wise Use Handbook 4, *Integrating wetland conservation and wise use into river basin management*.

- Directive and Water Framework Directive. In these cases, procedures may be in place to allocate sufficient water for wetlands.
22. In other cases, water allocation will be made on the basis of the benefits that water use will bring. Other stakeholders with competing water allocation requirements will include representatives of public water supply, energy, agricultural and industrial communities. All will have powerful arguments to justify their water requirements in terms of public health, food, and economic output, including employment.
  23. Consequently, achieving water allocation for wetlands will often be a long process that needs careful planning and will include training and awareness-building about the benefits of wetlands. These benefits need to be presented in a manner in which the trade-offs with other water users can be evaluated. Some benefits, such as fisheries, can be given a monetary value that fits into a traditional financial analysis, but this is generally not the case for social, cultural and ecological benefits<sup>4</sup>. A framework for decision-making needs to be established, such as multi-criteria analysis, that allows evaluation of all social, cultural and ecological values of wetlands as well as their economic values.
  24. To implement IRBM, many countries (or groups of countries that share a river basin) have established river basin management authorities or commissions, such as those for the Niger, Mekong, and Zambezi Rivers and Lake Chad Basin. However, many river basin authorities and water agencies have as yet insufficient appreciation of the benefits provided by wetlands in terms of their productivity, e.g. fisheries and livestock grazing, and their social importance, e.g. their traditional usage by local communities and indigenous peoples or their cultural heritage. Indeed, many perceive wetlands only as competing users of water, with high evaporative demand. It is vital that river basin planners and managers recognize that wetland ecosystems are key elements within a basin and are the resource from which the commodity of water is derived, rather than only a competing user of water. Thus judicious management of wetlands, such as use of wetlands to improve water quality, can be a solution to IRBM rather than a restriction.
  25. IRBM can be seen as an opportunity to promote the wise use of wetlands since it establishes a forum for dialogue where the benefits of wetlands can be demonstrated. It also provides an opportunity to question the wisdom of proposed infrastructure developments, such as dams, that might have a negative impact on wetlands<sup>5</sup> (see also Resolution VIII.2, *The report of the World Commission on Dams (WCD) and its relevance to the Ramsar Convention*).
  26. Where river basin authorities or similar bodies are not already in place, it will be necessary to initiate a process for defining water allocation, which will include creation of a forum for stakeholder interaction<sup>6</sup>.
  27. In developing a management planning process for a wetland site, it is important that wetland managers take into account the wider context of basin-scale, aquifer or coastal zone management processes for the region in which their wetland occurs, and interact with

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<sup>4</sup> Barbier, E., Acreman, M.C. & Knowler, D. 1997. *Economic valuation of wetlands: a guide for policy makers and planners*. Ramsar Convention, Gland, Switzerland.

<sup>5</sup> *Dams and development: a new framework for decision-making*. Report of the World Commission on Dams, Cape Town, South Africa, 2000

<sup>6</sup> See Resolution VIII.1, *Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands*.

these processes so as to ensure that the needs of the wetland are recognized and fully incorporated in this wider planning and management.

#### **IV. The functions of wetland management planning**

28. The most important functions of a wetland management planning process and a management plan are:

##### **Function I. To identify the objectives of site management**

This is the single most important function of the planning process. It is essential that management objectives be defined for each important feature of the ecological character of the site and for all other important features related to the functions and values of the site, including socio-economic, cultural and educational values. In other words, those responsible for developing the management plan must be clear about what they are trying to achieve.

##### **Function II. To identify the factors that affect, or may affect, the features**

The ability to achieve wise use and conservation objectives for wetlands will always be influenced to some extent by a number of factors, including trends, constraints and obligations, in fact anything that has influenced, is influencing, or may influence the features of the site for which objectives are set. It is essential that all the important factors should be identified, and that their impact on the site, particularly on the features of its ecological character, be considered. For the most significant factors, it may be necessary to undertake Environmental Impact Assessments (EIA) as part of the planning process.

##### **Function III. To resolve conflicts**

On most sites there will be some conflicts of interest and difficulty in identifying priorities. It is essential that the planning process should be recognized as a forum for resolving conflicts and establishing commitments for the future.

##### **Function IV. To define the monitoring requirements**

A function of monitoring, in the context of management planning, is to measure the effectiveness of management. It is essential to know, and to be able to demonstrate to others, that the objectives are being achieved. Thus, monitoring must be recognized as an integral component of management and planning. It should be designed to identify and manage change in ecological character of the site<sup>7</sup>.

##### **Function V. To identify and describe the management required to achieve the objectives**

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<sup>7</sup> **Change in ecological character** is “the impairment or imbalance in any biological, physical, or chemical components of the wetland ecosystem, or in their interactions, which maintain the wetland and its products, functions and attributes” (Resolution VII.10).

In most cases where habitats or species require safeguarding, some action, i.e. management, will be necessary. Having established that a plan identifies the objectives of management, it follows that it must also identify, describe, and estimate the cost of the action required.

#### **Function VI. To maintain continuity of effective management**

Continuity of effective management and monitoring is essential. Management processes must be adapted to meet a wide range of varying factors. Although management will change as circumstances require, the purpose of management should remain more or less constant. This is why continuity of effective management must be maintained, and not simply the continuity of any specified process. Continuity of monitoring is as important as is continuity of management.

#### **Function VII. To obtain resources**

Management planning must identify and quantify the resources required to manage a site, and this should include the preparation of a detailed budget. This information can then be used to support and justify bids for resources. It is often difficult, particularly in developing countries, to allocate funds for the implementation of management plans, but it is essential that the management plan identify mechanisms for financing management. These mechanisms may include generating income on the site, for example, through tourism, harvesting of reeds, fishing, etc., and/or the establishment of a Trust Fund for the site or other long-term funding mechanism. In many cases it may be necessary to assess the capacity of the organization responsible for implementing the management plan at an early stage in its preparation. Shortfalls identified in the capacity assessment should be addressed in the Action Plan section (see section XVII of these guidelines).

#### **Function VIII. To enable communication within and between sites, organizations and stakeholders**

Communication is essential within organizations, and also between organizations and individuals. Management plans and the management planning process are a means of presenting information in a structured and accessible format that will inform others about the site, the aims of management, and the management processes. Planning and management for the maintenance of ecological character are largely dependent on the availability of information. It is also important that those responsible for developing the plan should be aware of management techniques and procedures developed or improved elsewhere. The communications, education and public awareness (CEPA) components of the plan from its inception to full implementation should be clearly defined (see Resolution VIII.31).

#### **Function IX. To demonstrate that management is effective and efficient**

Those responsible for developing the plan must always be in a position to demonstrate that they are making the best use of resources and that management will be effective. In other words, the plan should provide the basis for any cost benefit analysis. It is also important that the need for accountability is recognized.

#### **Function X. To ensure compliance with local, national, and international policies**

It is essential that the management plan recognizes and is compliant with a wide range of policies, strategies, and legislation. Occasionally policies may be contradictory, and consequently one of the functions of a plan must be to integrate the various policies. A National Wetland Policy and related national biodiversity plans and policies provide the context and framework for the development of a site management plan (see Ramsar Handbook no. 2, *Guidelines for developing and implementing National Wetland Policies*, for further guidance). In particular the plan should contribute to the implementation of the National Wetland Policy and/or national biodiversity strategy and other related plans and policies.

## **V. Stakeholders, including local communities and indigenous people**

29. Wetland management, and particularly the planning process, should be as inclusive as possible. Legitimate stakeholders, particularly local communities and indigenous people, should be strongly encouraged to take an active role in planning and in the joint management of sites. It is highly desirable that positive steps be taken to ensure that gender issues, including women and their interests, are fully taken into account at all stages in the process. If necessary, appropriate incentives to ensure full stakeholder participation should be identified and applied. Further guidance on involving local communities and indigenous peoples in the participatory management of wetlands is contained in the guidelines adopted by Ramsar Resolution VII.8 (Ramsar Wise Use Handbook 5).
30. A 'stakeholder' is taken to mean any individual, group or community living within the influence of the site, and any individual, group or community likely to influence the management of the site. This will obviously include all those dependent on the site for their livelihood.
31. Stakeholder interests can have considerable implications for site management, and will place significant obligations on managers. Public interest, at all levels, must be taken into account. Wetland managers must recognize that other people may have different, and sometimes opposing, interests in the site. It is essential that these interests be safeguarded wherever possible, but this must not be to the detriment of the features of the ecological character of the site. Any use of the site must ultimately meet the test of compatibility with the wise use and conservation purpose and objectives, and this is of added significance where the site has been designated as a Wetland of International Importance.
32. The involvement and understanding of local communities and indigenous peoples in the management of wetlands is of particular importance where the wetland is under private ownership or in customary tenure, since then the local communities are themselves the custodians and managers of the site, and in these circumstances it is vital that the management planning process is not seen as one imposed from outside upon those who depend on the wetland for their livelihoods.

### **Consultation with, and participation by, stakeholders**

33. It is particularly important that stakeholders be informed at the earliest possible stage about an intention to produce a management plan, but at this stage this should not be confused with formal negotiation. The most important early message is that everyone will be consulted and involved and that all interests will be given proper consideration. Management planners must convey the message that they are open-minded and will deal as

objectively as possible with all issues. Relevant stakeholders should include not only local communities but also local government (including all sectors whose decisions can affect the management planning process and its objectives) and the private sector.

34. Consultation and negotiation should be about presenting ideas or proposals for discussion and seeking views about specific issues. A structured planning process should generate ideas and proposals – unfocused discussion is rarely conclusive and can be counterproductive. Before any consultation, managers must know what they are attempting to achieve, and should define those areas that are open to negotiation. For issues that are open to discussion, a range of well-considered options should be given. Every effort must be made to be inclusive and to achieve consensus, supporting the wise use of resources without compromising the natural integrity of the unit. In some cases, especially when management is not the direct responsibility of local communities or indigenous peoples, the process will be ‘citizen-assisted’ rather than ‘citizen-driven’, because management decisions will ultimately rest with the responsible agency.
35. Before embarking upon a plan, it will be necessary to collect or collate all available relevant information about the site in order to describe its ecological character and its functions and values, including all relevant socio-economic, cultural and educational features. Professionals in the natural and social sciences should be involved to ensure effective collection of all relevant data. Local people and other stakeholders are usually an important source of information, and they should be involved through appropriate and proven techniques that are sensitive, *inter alia*, to gender and cultural issues, in the data and information collation stage of the process.
36. Once data collation and the preparation of the descriptive sections of the plan are complete, the process moves on to preparing management objectives concerning the maintenance of the ecological character and other aspects of interests to stakeholders. The protection of the features of the ecological character is the prime concern for a Ramsar site, and should not be considered negotiable. However, it is important to bear in mind that these features are very often present because they are, and will need to be, maintained by local people. It is very important when introducing the concepts of designation and management planning to stakeholders that they do not gain the impression that the process will curtail legitimate activities, unless such activities could threaten important features or are potentially unsustainable.
37. Once the obligations are known, planners can then move on to identify the management requirement. At this stage, negotiation with stakeholders becomes essential. While the objectives concerning the maintenance of the ecological character should not be negotiable, it is often possible to identify a range of alternative management approaches that would meet them whilst at the same time assisting in achieving other objectives of interest to different stakeholders.
38. Finally, management plans should be regarded as public documents, and all stakeholders should be given access to the plan.

## **VI. The precautionary approach as applied to environmental management**

39. When considering the carrying capacity of a site for any human use, activity or exploitation (i.e., its sustainability), the best available evidence should indicate that the activity will not be a threat to the features of the ecological character of the site.
40. Contracting Parties are, when implementing their wetland management planning process, invited to take into consideration the precautionary approach, as established in Principle 15 of the 1992 Rio Declaration on Environment and Development adopted by the United Nations Conference on Environment and Development (UNCED), which affirms that

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

## VII. Management planning is a process

41. Management planning must be regarded as a continuous, long-term process. It is important to recognize that a management plan will grow as information becomes available. Planning should begin by producing a minimal plan that meets, as far as resources allow, the requirements of the site and of the organization responsible for managing the site, and no more.
42. All available information should be collated and assessed (see paragraph 35 above). Any shortfall of relevant information must be recorded, and projects should be planned to correct this deficiency. In time, as further information is collected and resources become available, the plan can grow, and may eventually meet all site management requirements.
43. The planning process is adaptable and dynamic. It is essential that the plan change, or evolve, to meet changing features, factors and priorities, both within and outside the site.
44. The overall management planning process for Ramsar sites and other wetlands is supported by the substantial range of the Convention’s tools and guidances compiled in the Ramsar Wise Use Handbooks. Of particular relevance to the different stages of the management planning process are:

### **Identification and designation of wetlands**

Definitions of “ecological character” and “change in ecological character” (Resolution VII.10, Appendix VI).

*A Framework for Wetland Inventory* (Resolution VIII.6)

*Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11)

*Enhancing the information on Wetlands of International Importance (Ramsar sites)* (Resolution VIII.13)

### **Wetland assessment**

*Wetland risk assessment framework* (Resolution VII.10)

*‘Guidelines for incorporating biodiversity related issues into environmental impact assessment legislation and/or processes in strategic environmental assessment’ adopted by the Convention on Biological Diversity (CBD), and their relevance to the Ramsar Convention* (Resolution VIII.9)

*Gaps and harmonization of Ramsar guidance on wetland ecological character, inventory, assessment and monitoring (Resolution VIII.7)*

### **Wetland monitoring**

*A Framework for designing a wetland monitoring programme (Annex to Resolution VI.1)*

### **In situ Wetland management**

*New Guidelines for management planning for Ramsar sites and other wetlands (Resolution VIII.14)*

*Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands (Resolution VII.8)*

*Guiding principles for taking into account the cultural values of wetlands for the effective management of sites (Resolution VIII.19)*

### **Ex situ Wetland management**

*Guidelines for integrating wetland conservation and wise use into river basin management (Resolution VII.18)*

*Principles and guidelines for integrating wetlands into Integrated Coastal Zone Management (Resolution VIII.4)*

*Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands (Resolution VIII.1)*

*The Report of the World Commission on Dams (WCD) and its relevance to the Ramsar Convention (Resolution VIII.2)*

## **VIII. Inputs, outputs, and outcomes**

45. Managers must differentiate between inputs, outputs and outcomes.

Inputs	=	Resources
Outputs	=	Policies, management plans, management
Outcomes	=	Condition of the features of the ecological character of the site and other management objectives

46. These terms are defined as:

- i) **Inputs.** The resources provided for site management, for example, finance, staff and equipment.
- ii) **Outputs.** The consequential by-products of management or the management planning process. For example, policies are developed for the various management activities, management plans are prepared, interpretation is provided, and a management infrastructure is developed and maintained. Often, outputs are used as a means of assessing whether management is appropriate. Organizations will claim that they have successfully managed their sites because they have achieved a number of outputs. This can be very misleading because it is possible to carry out a wide range of management activities and still fail to protect the ecological character features and/or, for example, to enlist the full support and involvement of local communities. One of the worst mistakes that can be made in ecosystem management is to believe that a feature is being successfully protected when, in reality, it is not.

- iii) **Outcomes.** This is the purpose of management. These are the favourable conditions of the ecological character features, such as habitats and species on the sites, which in turn may depend upon the effective management of particular socio-economic parameters, such as ensuring sustainable fisheries or adequate marketing of rice production and/or equitable distribution of the benefits of tourism. It will often be necessary to undertake restoration management followed by maintenance management to ensure that the required conditions or processes are maintained. The condition of features must be defined and quantified. If this is not done, it will not be possible to judge whether the required conservation or sustainable use outcomes have been achieved.
47. The only means of judging whether or not inputs and outputs are adequate is by considering the outcomes of management. When this has been done, and only then, it will be possible to determine whether the management is appropriate.

## IX. Adaptable management

48. In order to safeguard sites and their features, managers must adopt a flexible approach that will allow them to respond to the legitimate interests of others, adapt to the ever-changing political climate, accommodate uncertain and variable resources, and survive the vagaries of the natural world.
49. The adaptable management process as incorporated in the Ramsar planning approach is as follows (see Figure 1):
- i) A decision is made about what should be achieved (i.e., quantified management objectives are prepared for the important features).
  - ii) Appropriate management, based on the best available information, is implemented to achieve the objectives.
  - iii) The features are monitored in order to determine the extent to which they meet the objectives.
  - iv) If objectives are not being met, management is modified.
  - v) Monitoring is continued to determine if the modified management is meeting the objectives, and step iv) is repeated for any further adjustments, as necessary.
50. In exceptional circumstances, it may be necessary to modify the objectives.
51. The adaptable management cycle is usually repeated at predetermined intervals. The interval should be established to take into account the nature and in particular the fragility and rate of change of the site features. However, many countries and organizations will impose a mandatory cycle. In all cases, the cycle should be repeated at any time when emergencies or unforeseen threats become apparent.
52. This adaptable approach enables wetland managers to:
- i) learn through experience;

- ii) take account of, and respond to, changing factors that affect the features;
- iii) continually develop or refine management processes; and
- iv) demonstrate that management is appropriate and effective.

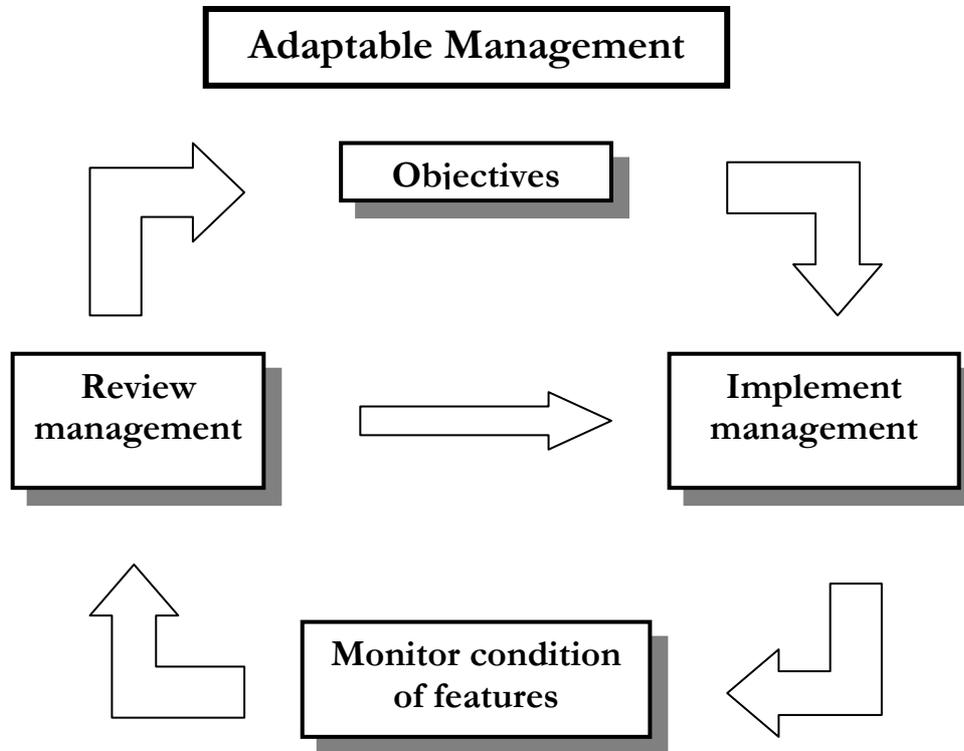


Figure 1. The adaptable management cycle

## X. Management units, zonation and buffer zones

- 53. In general, the management planning process and management plan should cover the entire site. However, where a wetland site is composed of more than one discrete sub-site separated by areas of other land use (for example, discrete wetlands along the floodplain of a major river), separate management plans for each sub-site may be appropriate. However, such individual sub-site plans must fit under the umbrella of an overview plan that should be prepared before those for the sub-sites.
- 54. Likewise, where the wetland is very large, it may be helpful to divide the site for management planning purposes into several contiguous zones or regions, and to develop separate management plans for each of these zones, again under the umbrella of an overall plan prepared in advance.
- 55. Several other types of zonation may be appropriate for application to different sites, depending on their characteristics and their relationship to other land uses in the surrounding area. Ramsar sites range from only the area of wetland itself to the inclusion of substantial areas of surrounding non-wetland habitats, often with multiple land-uses. This great variety of what is included within the boundaries of Ramsar sites means that any

zonation scheme applied under the Convention must be sufficiently versatile and flexible to cover this variety of site characteristics.

56. When the Ramsar site itself does not include a buffer zone, it is generally appropriate for management planning purposes to identify and establish such buffer zone around the core wetland area defined within a Ramsar site or other wetland. The buffer zone should be that area surrounding the wetland within which land use activities may directly affect the ecological character of the wetland itself, and the objective for land use within the buffer zone should be one of sustainable use through ecosystem management, consistent with the maintenance of the ecological character of the wetland. When a wetland site is composed of discrete sub-sites, a buffer zone should be defined for each, including, where appropriate, all the area between the sub-sites.
57. The location of a buffer zone in relation to the core wetland area of a designated Ramsar site will vary depending upon what ecosystems are included within the site boundaries. Where the designated site is only the wetland itself, then for management purposes a buffer zone should be defined in the surrounding area outside the designated site. In contrast, where the site encompasses the wetland and its surroundings, the buffer zone should extend to the boundaries of the designated site, and then a 'core area', perhaps the wetland ecosystem itself, defined within the site.
58. As described in Section III, the dependence of wetlands on water supply from outside the wetland means that for the purposes of wetland management planning the river basin or catchment area of the coastal zone should be viewed in effect as a buffer zone for the wetland, since water and land-use in these extended areas indirectly affect the ecological character of the wetland. However, particularly in the case of a wetland within a very large river basin, basin-scale or coastal zone management may be seen as a third, outer zone for management purposes, and a more limited buffer zone immediately surrounding the wetland may still be a necessary management planning tool.
59. The Biosphere Reserve zonation concept, in which the site may include up to three zones - core zone, buffer zone (for research and training) and transition zone (for sustainable use) - is potentially applicable to all Ramsar sites, and should be applied whenever feasible and appropriate. Its application is particularly important where a site is designated as both a Ramsar site and Biosphere Reserve, and here the relationship between the Ramsar site boundary and the zonation established for the Biosphere Reserve should be clearly established.
60. Although many Ramsar sites are within protected areas, where the primary land-use within the site is wetland conservation, many are, like Biosphere Reserves, multiple use sites. In the latter, the management objectives for the use of the core wetland are broadly to ensure that the ecological character of the wetland is maintained or enhanced so as to continue to provide its values and functions for people's livelihoods and for biodiversity conservation.
61. Any zonation scheme should recognize the existing multiple uses of Ramsar sites and their surroundings, and ensure that management objectives for the core zone are designed primarily to maintain the ecological character of the wetland, as well as that those for any form of surrounding buffer zone are consistent with this maintenance of the ecological character. Clear, separate but complementary and mutually supportive management objectives should be established for each zone.

62. Another approach to zonation, and one that is not mutually exclusive to the 'core/buffer zonation' approach, is that of establishing zonation for a particular use of a site. An example could be the use and development of a wetland for ecotourism. Here zonation would be used to establish in which parts of a site ecotourism access can occur, where ecotourism infrastructure should be placed (e.g., the sensitive siting of a visitor centre), and from which parts of a site ecotourism should be excluded owing to the sensitivity of those parts of the ecosystem to disturbance. Such zonation schemes will generally cut across the core and buffer zones.
63. The experience of the Man and the Biosphere Programme, under which zonation is recognized as an important part of the delimitation and management of Biosphere Reserves as multiple use sites, is that zonation plays an important role in minimizing user conflicts by separating potentially conflicting activities whilst ensuring that legitimate land uses can continue with minimal conflict.
64. The establishment of a zonation scheme should involve full stakeholder participation from the earliest stage, since it is in 'drawing the lines' between zones that many conflicts can materialize. Establishing zonation and management objectives for each zone (and hence what activities should and should not be permitted within each zone) is an important part of the process of establishing a close involvement of local communities, indigenous peoples, and other stakeholders in the management of the wetland.
65. Some general rules should be applied when establishing zones, regardless of their type and purpose:
  - i) zonation should be established with the full involvement of stakeholders, including local communities and indigenous peoples;
  - ii) a full and detailed rationale should be made to explain the basis for establishing and delineating zones, and this is particularly important when establishing the limits of buffer zones;
  - iii) a concise description of the functions and/or restrictions applied within each zone must be prepared as part of the management plan;
  - iv) zones should be identified with a unique and, if possible, meaningful code or name: but in some cases, a simple numerical code may be adequate;
  - v) a map showing the boundaries of all zones must be prepared;
  - vi) where possible, zone boundaries should be easily recognizable and clearly identifiable on the ground: physical features (for example, fence lines and roads) provide the best boundaries, and boundaries based on dynamic features, such as rivers, mobile habitats, and soft coastlines, must be identified with some form of permanent marker; and
  - vii) on large, uniform sites, or in areas of homogeneous habitat crossed by a zone boundary, fixed permanent markers with locations mapped using a Global Positioning System (GPS) should be used.

## XI. Format of the management plan

66. The format of the management plan, as recommended in these guidelines, should comprise five main sections, reflecting the main steps in the management planning process:

- a) Preamble/policy
- b) Description
- c) Evaluation
- d) Objectives
- e) Action Plan

67. Note that the steps of this process are repeated several times through the plan – they are applied to ecological character, socio-economic interests, cultural values, and any other features of interest. In general, it is good practice to begin with ecological character, but there is no implied hierarchy.

68. The recommended structure and content of each of these sections is further described below and illustrated in Figure 2.

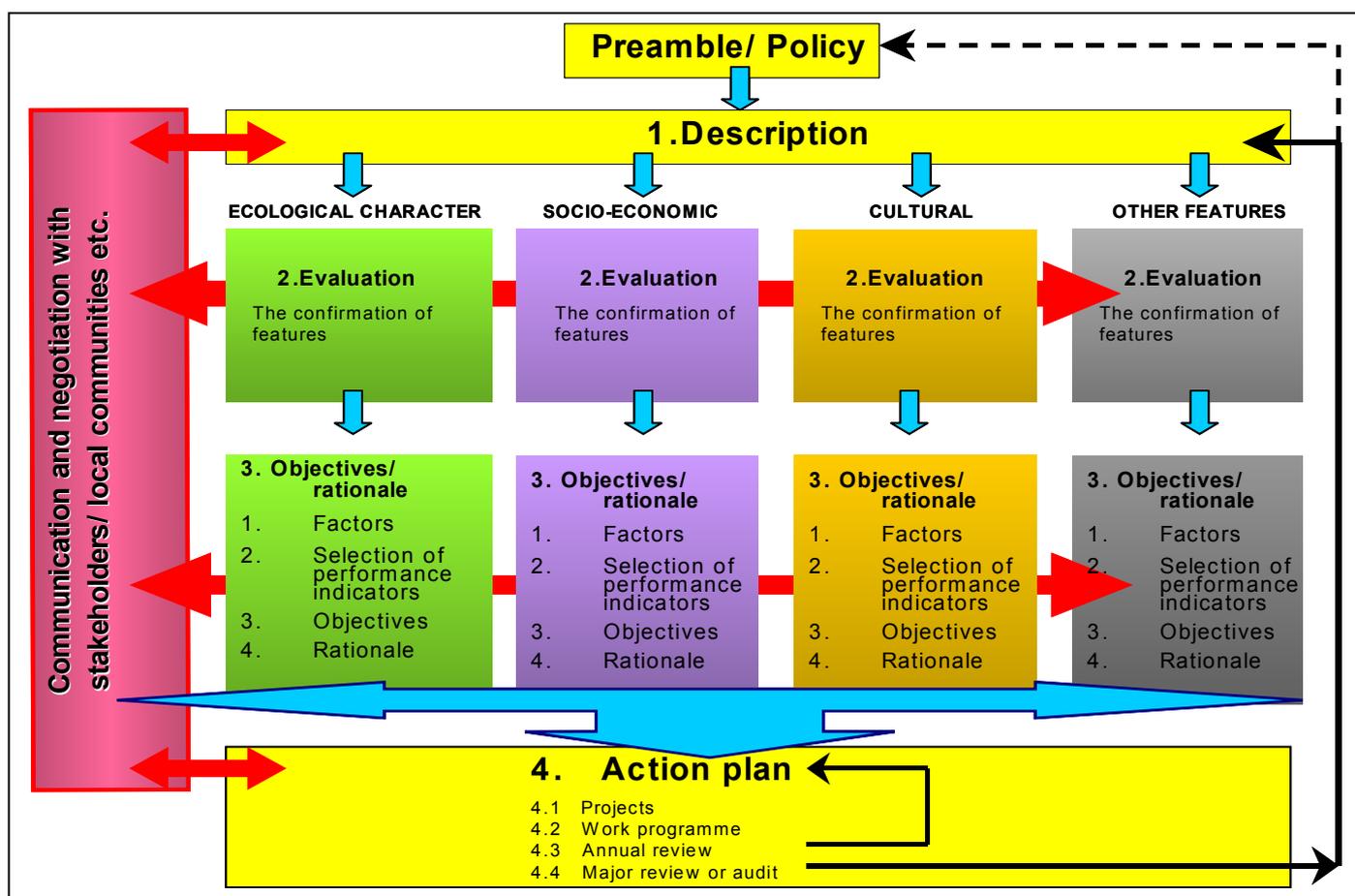


Figure 2. Recommended structure and content of a management plan for a Ramsar site or other wetland.

## XII. Preamble / policy

69. The preamble is a concise policy statement that should reflect, in broad terms, the policies and/or practices of supranational, national, or local authorities and other organizations and traditional management systems, including, for example, non-governmental bodies, local communities or private owners' resource management arrangements that are concerned with the production and implementation of the management plan. The preamble should also recall the broad Ramsar Convention requirements; namely the maintenance of the ecological character of sites on the Ramsar List of Wetlands of International Importance, the wise use of all wetlands, the establishment of nature reserves at wetlands, whether or not they are included in the Ramsar List, and international cooperation where appropriate to the management of the site, in particular in the case of shared wetlands and water systems.

## XIII. Description

70. The description is an important part of the management planning process. It provides the information used to fuel the rest of that process.
71. The description is fundamentally a collation and synthesis of existing data and information. The identification of any shortfall of relevant data and information is also a key function of this part of the process (see paragraphs 34 and 42 above).
72. In many cases, not all information needed for the basis of management planning will be available. Collection of more detailed data on these features and/or the factors influencing them, in order to fill any identified essential gaps, may be necessary, but care should be taken to ensure that only additional information essential for the establishment of management objectives for the site is the subject of further data collection.
73. The description should be regularly reviewed and updated, so as to incorporate new sources of data and information, including updates from time-series monitoring.
74. For Ramsar sites, particular attention should be given to the description of the features of the site which have formed the justification for its designation under each of the applied Ramsar *Criteria for Identifying Wetlands of International Importance*.
75. All relevant data may be located and arranged under the headings provided in the 'Information Sheet on Ramsar Wetlands (RIS)' as amended by COP8 (Resolution VIII.13), used by Contracting Parties for the designation of Ramsar sites. It follows that the description in the RIS should clearly describe the overall ecological characteristics of the site, and identify the specific ecological character features for which the site has been designated and which need to be maintained in favourable conservation status through the management planning process. In addition, all other entries in the RIS which are not strictly related to the ecological character should also be carefully considered and incorporated in the description. It should be noted that whilst the information compiled in the RIS can form a starting point for the site description, the level of detail of information required for site management planning processes will generally go beyond that necessary in the RIS for site designation.

76. However, it is important that the information derived from the existing data is presented in the plan description in a concise manner and in a language and presentation that is easy for all stakeholders to understand, rather than full of detailed scientific terms and jargon of interest only to scientific and technical experts in those particular subjects.
77. The plan description should make reference to, but should not contain sensitive data on, rare or endangered species - this should remain confidential.
78. The plan description should also include information on any particular local features or characteristics of the site, especially its values and functions for people, that may be helpful in establishing priorities and setting management objectives.
79. All descriptions should include a bibliography containing references that provide an 'audit trail' to all papers, reports, journals, books, etc., and unpublished sources used during the preparation of the plan.

#### **XIV. Evaluation**

80. Evaluation is the process of identifying or confirming the important features or foci for management planning. Figure 2 indicates that evaluation of important features should be undertaken for each of four major areas of interest, and the evaluation process must be applied to each in turn. For Ramsar sites and other wetlands, evaluation should be undertaken for ecological character features, as well as for socio-economic features, cultural features, and any other important features identified.
81. Evaluation criteria must be developed for each feature of interest. A list of criteria, with examples, recommended for evaluating ecological character features is provided below, along with an indicative list for socio-economic and cultural criteria which should be further developed for each site to take into account its specific socio-economic and cultural characteristics.

##### **Evaluation of ecological character (habitats, species and natural processes)**

82. The important features of the ecological character (habitats, populations, and processes) of a site, as defined by Resolution VII.10, provide a focus for the planning process. The main purpose of this section of the management plan is to provide a list of the features and to confirm their status. The status of features that have been previously recognized should be confirmed. An evaluation process is required for features where there has been no previous, or formal, recognition of the features.
83. The evaluation process should utilise the guidance adopted by the Convention for wetland inventory and assessment which provide tools for evaluation of ecological character and the status of wetlands.
84. In some cases, the presence of the important ecological character features on a site will have been recognized prior to planning. For example, the site may contain legally protected species or habitats. It is essential that the legal status of such features be recognized.
85. The list of criteria below is recommended for the evaluation of ecological character features. The list is not intended to be fully comprehensive, nor is there any suggestion that

it will be appropriate to all features on all sites. Only the relevant or useful criteria should be used, and additional criteria should be added as circumstances require.

86. Note that the criteria often overlap or are interdependent. For example, it is difficult to discuss fragility without considering rarity. Fragile features are, by their nature, generally rare.
87. The criteria should always be regarded as having negative as well as positive aspects. For example, high levels of biological diversity (i.e., habitat or species richness) are usually regarded as of high importance, but such assumptions should be evaluated with care, and in the context of the general biodiversity characteristics of particular wetland types and their location, since high diversity can be the consequence of human intervention in a habitat that is naturally species-poor rather than a naturally occurring phenomenon.
88. The recommended criteria for evaluating ecological character features are as follows.

#### **Criterion 1 for evaluating ecological character features: Size**

89. In most cases, the importance of a feature will increase with size. However, size as a criterion must always be linked to other qualities. Small areas of high-quality habitat can often be more highly valued than large areas of low-quality habitat.
90. Size is of particular importance where habitats are fragmented and populations isolated. The viability of small, and isolated, features and sites is usually questionable. Very small populations are often extremely vulnerable and can become extinct simply through chance, despite appropriate management. Nevertheless, such places may, at times, represent the last remaining examples of a habitat or population and may therefore be significant in the maintenance of overall biological diversity.

#### **Criterion 2 for evaluating ecological character features: Biological diversity**

91. The maintenance of biological diversity is usually regarded as one of the most important aims of nature conservation and the sustainable use of biological resources. This is largely because one of the most obvious, and serious, effects of human intervention on the environment has been the destruction of habitats and extinction of species. Consequently, management is frequently carried out in order to maintain, or even improve, site diversity. However, it must be recognized that there are occasions when high diversity is undesirable. For example, cut, over-drained, or otherwise modified peat bogs will contain a greater diversity of communities and species than an intact, natural bog.
92. High diversity is sometimes a feature of dynamic or disturbed habitats, giving rise to an opportunity for seral vegetation succession. Where this instability is natural, the resultant high diversity is highly valued. Conversely, where the disturbance is a consequence of human intervention, the value of the resultant diversity is doubtful.

#### **Criterion 3 for evaluating ecological character features: Naturalness**

93. Naturalness is one of the most important criteria applied to ecological character features. In general, the more natural a feature is, the greater the value of its ecological character.

However, very few, if any, wetlands in the world can be regarded as wholly natural, and it is recognized that even highly modified habitats can be extremely important for wildlife.

**Criterion 4 for evaluating ecological character features: Rarity**

94. Rarity is the one aspect of biodiversity conservation that has generally received most attention, and, as a consequence, managers are usually aware of the most rare and endangered habitats and species on their sites. These will feature prominently in any management plan. Often it is the presence of rare habitats or species that leads to the selection of sites for protection management – for Ramsar sites, through the application of Ramsar Criterion 2 concerning threatened species and ecosystems.

**Criterion 5 for evaluating ecological character features: Fragility**

95. To a greater or lesser extent, all ecological character features demonstrate a degree of fragility. Fragility should always be considered within a time scale, and the degree to which the damage is permanent is a crucial consideration. Fragility is almost invariably linked to rarity; fragile features are, or soon become, rare.
96. Fragility should not always be dismissed as a negative factor. Many natural communities rely on disturbance for their survival. These usually ephemeral communities often occur during the early successional stages of dynamic habitats. Intentional disturbance is often a necessary and legitimate part of management aimed at setting back succession for the purpose of maintaining community vigour, as in the case of burning or grazing to enhance grasslands.
97. Species may also be fragile, most often as a result of habitat change or destruction. Some have such specialized and complex requirements that a seemingly obscure or minor change can have devastating effects.

**Criterion 6 for evaluating ecological character features: Typicalness**

98. Sites are usually selected and valued because they contain the best, or at least a good, example of a particular feature, for example through Criterion 1 for the identification and designation of Ramsar sites. The qualities that render a feature exceptional are most often the unusual or rare. It is also important, however, that the typical and commonplace should not be undervalued. This criterion is particularly useful for providing the justification for safeguarding the typical features in an area.

**Criterion 7 for evaluating ecological character features: Potential for improvement and/or restoration**

99. Most features are, to a greater or lesser extent, imperfect. This criterion is used to assess the potential for improvement or restoration. Severely degraded features may have varying degrees of potential for improvement; some will have none at all, while others will have potential for total recovery, given appropriate management. The need to identify this potential is crucial. There can be no justification for wasting resources in attempting to manage a degraded feature when the underlying reasons for the damage cannot be reversed.

100. The *Principles and guidelines for wetland restoration*, adopted by COP8 Resolution VIII.16, provide further guidance on the selection of wetlands appropriate for restoration.

#### **Evaluation of other features of importance on wetland sites**

101. In addition to the ecological character features, most sites will contain other features of equal importance, for example, cultural, socio-economic, geological and geomorphological features, landscape and palaeo-environmental features. It is important that these features be given appropriate attention and that the full management planning process be followed for each. This is particularly important in relation to ensuring the involvement and input of all stakeholders (see section IV).
102. The evaluation should focus on the values and functions, goods and services provided by the wetland in support of human well-being and on the presence of cultural features, both cultural artefacts and structures and their religious and faith significance, especially for local communities and indigenous peoples. Geological, geomorphological and landscape significance should also be evaluated in this section of the plan.
103. Some wetlands can also have additional features that do not fall under ecological character or socio-economic or cultural features, and these should also be identified and evaluated. An example would be the importance of a wetland for scientific research or long-term monitoring.
104. In evaluating socio-economic features of the wetland, it is appropriate to apply the techniques of economic valuation of wetlands and draw on information provided by these techniques. For further information on economic valuation, see the 1997 Ramsar publication on *Economic valuation of wetlands: a guide for policy makers and planners*.
105. An indicative list of socio-economic values and functions of wetlands is given in Box 1. Note that not all these features will be applicable to all wetlands.

**BOX 1. Indicative list of wetland values and functions for the evaluation of socio-economic features of wetlands for management planning**

(derived from Annex III of CBD's *Guidelines for incorporating biodiversity related issues into environmental impact assessment legislation and/or processes in strategic environmental assessment*, see Resolution VIII.9.)

**Production functions**

Timber production  
Firewood production  
Production of harvestable grasses (construction & artisanal use)  
Naturally produced fodder & manure  
Harvestable peat  
Secondary (minor) products  
Harvestable bush meat (food)  
Fish & shellfish productivity  
Drinking water supply  
Supply of water for irrigation and industry  
Water supply for hydroelectricity  
Supply of surface water for other landscapes  
Supply of ground water for other landscapes  
Crop productivity  
Tree plantations productivity  
Managed forest productivity  
Rangeland /livestock productivity  
Aquaculture productivity (freshwater)  
Mariculture productivity (brackish/saltwater)

**Carrying functions – suitability for:**

constructions  
indigenous settlement  
rural settlement  
urban settlement  
industry  
infrastructure  
transport infrastructure  
shipping / navigation  
road transport  
rail transport  
air transport  
power distribution  
use of pipelines  
leisure and tourism activities

**Processing and regulation functions**

Decomposition of organic material (land based)  
Natural desalinisation of soils  
Development / prevention of acid sulphate soils  
Biological control mechanisms  
Seasonal cleansing of soils  
Soil water storage capacity  
Coastal protection against floods  
Coastal stabilisation (against accretion / erosion)  
Soil protection  
Water filtering  
Dilution of pollutants  
Discharge of pollutants  
Bio-chemical/physical purification of water  
Storage for pollutants  
Flow regulation for flood control  
River base flow regulation  
Water storage capacity  
Ground water recharge capacity  
Regulation of water balance  
Sedimentation / retention capacity  
Protection against water erosion  
Protection against wave action  
Prevention of saline groundwater intrusion  
Prevention of saline surface-water intrusion  
Transmission of diseases  
Carbon sequestration  
Maintenance of pollinator services

106. Landscape and wilderness qualities are often overlooked in management plans when they apply to protected areas. For sites where habitat management and maintenance is important, and there are few human-made structures, the management of the habitat will usually also cover most landscape issues. For most natural protected areas, landscape management will be concerned with minimising, or removing, the influence of people where this is regarded as visually damaging.

107. In the case of sites where there are significant anthropogenic artefacts with historical, cultural or religious values, these should also be safeguarded through the management

planning process. Such features could be included in a plan's section on landscape, but their protection and maintenance is probably best achieved by regarding them as features of interest, and dealing with them as any other feature.

108. An indicative list of cultural features of wetlands is provided in Box 2.

**BOX 2. Indicative list of cultural features of wetlands for evaluation for wetland management planning**

(derived from *Cultural aspects of wetlands* (Ramsar COP8 DOC. 15))

Palaeontological and archaeological records  
 Historic buildings and artefacts  
 Cultural landscapes  
 Traditional production and agro-ecosystems e.g. ricefields, salinas, exploited estuaries  
 Collective water and land management practices  
 Self-management practices, including customary rights and tenure  
 Traditional techniques for exploiting wetland resources  
 Oral traditions  
 Traditional knowledge  
 Religious aspects, beliefs and mythology  
 'The arts' – music, song, dance, painting, literature and cinema

109. For further guidance on the identification and incorporation of cultural issues and features, including cultural artefacts and cultural landscapes, see the *Guiding principles for taking into account the cultural values of wetlands for the effective management of sites* annexed to Resolution VIII.19.

## XV. Objectives

110. Through undertaking the evaluation, a list of the important site features will have been identified. The next step is to prepare management objectives for each of these features.

111. An objective is an expression of something that should be achieved through management of the site. Objectives should have the following characteristics:

- i) **Objectives must be measurable.** Objectives must be quantified and measurable. If they are not measurable, it will be impossible to assess through monitoring whether they are being achieved.
- ii) **Objectives should be achievable, at least in the long term.** This is a very obvious, but often forgotten, characteristic – there can be little purpose in pursuing unattainable objectives.
- iii) **Objectives must not be prescriptive: they define the condition required of a feature and not the actions or processes necessary to obtain or maintain that condition.** Objectives are an expression of purpose. A differentiation should be made between the purpose of management and the management process, because the management undertaken to safeguard a feature will vary according to the condition of that feature. For example, in the case of a derelict feature, recovery management may be applied until the feature reaches the desired condition, at which

time maintenance management can be substituted. These two management approaches can be fundamentally different, or may simply vary in intensity.

### Preparing measurable objectives

112. There are three key steps in the process of preparing measurable objectives:
- i) Describe the condition that is required for a feature.
  - ii) Identify the factors that influence the feature, and consider how the feature may change as a consequence.
  - iii) Identify and quantify a number of performance indicators for monitoring progress in achieving the objectives for that feature.
113. The process of applying the three steps is outlined below.

#### **Step 1. Describe the condition that is required for a feature**

114. Most current management plans avoid describing the conditions required of the features. Typically, the plan will discuss maintaining or improving a feature, but will not explain what is to be maintained or how it will be established that it has improved. In order to judge whether or not the objectives are being achieved, there must be a clear description of the conditions that are required for the features.
115. The first step is to provide a description, using plain language, of the conditions that the plan is attempting to obtain or maintain. This is perhaps the long-term vision for the feature. There is no need to focus too strongly upon quantification at this stage – that should be done at a later point in the process.
116. A useful approach for habitats and species, which can be applied anywhere, has been developed by the European Union for Natura 2000 conservation sites. It is a generic approach towards defining the condition in which it is wished to maintain a feature. The European Union requires that features on European sites be maintained at “favourable conservation status”.<sup>8</sup>
117. Habitats are in favourable conservation status when:
- i) they are stable or increasing in area;
  - ii) they are sustainable in the long term;
  - iii) the condition of typical species is also favourable; and
  - iv) the factors that affect the habitat or its typical species are under control.
118. Species are in favourable conservation status when:
- i) the population is viable in the long term;
  - ii) the range is not contracting;

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<sup>8</sup> Further information about the EU Natura 2000 sites and the Habitats and Birds Directives can be found in <http://europa.eu.int/comm/environment/nature/natura.htm>

- iii) sufficient habitat exists to support the species in the long term; and
  - iv) the factors that affect the habitat, or its typical species, are under control.
119. These generic definitions of favourable conservation status for habitats and species are simply an expression of what would be wished of any habitat or species that requires management and could be applied to any feature on any site. Clearly, the generic statement must be developed into one with rather more meaning for particular features of the site, but this in an excellent starting point.
120. Similar statements about “favourable status” should also be developed for features related to human activities and/or practices within the site and/or the buffer zone, in particular in relation to their sustainability and the carrying capacity of the site.

**Step 2. Identify the factors that influence the feature, and consider how the feature may change as a consequence**

121. The ability to achieve objectives will always be influenced by factors. Factors include policies, strategies, trends, constraints, practices, conflicts of interest and obligations, in fact anything that influences, or may influence, the features. In terms of the Convention, these are essentially those activities that are causing, or are likely to cause, change in ecological character. It is important that both negative and positive factors be considered, since both will have implications for management.
122. The conservation management of habitats and species is mainly about controlling factors, and in particular the consequences of human intervention, past, present and future, and the conflicts of interest among different stakeholders. When attempting to safeguard natural habitats, managers have to control, as far as possible, damaging human activities or influences and to encourage those that contribute to long-term conservation. For example, hunting, timber extraction, and burning are often controlled. For habitats which have been created or modified by human influence, and have become valued as conservation sites, managers often maintain human influence, though they usually call this management (for example, the controlled burning or grazing of grassland to prevent it from reverting to scrub).
123. Uncontrollable factors that may or may not be of human origin must also be taken into account. For example, climate change and invasive species can alter stability and frustrate the ability to measure, predict or sustain desired conditions, and avoidance or control may be impossible. Early recognition of these management limitations can facilitate the development of contingency measures.
124. The influence of factors should be considered for each feature in turn, and then consolidated for statement in the plan as necessary. For example, one factor may influence several features identified for the site, and establishing an appropriate management intervention for that factor needs to take into account the possibility of it having simultaneous positive and negative influences upon different features.
125. Factors, both positive and negative, can be identified and grouped under the following headings:
- i) Internal natural factors

- ii) Internal human-induced factors
- iii) External natural factors
- iv) External human-induced factors
- v) Factors arising from legislation and tradition
- vi) Factors arising as a result of conflicts/communality of interest
- vii) Physical considerations and constraints
- viii) Institutional factors

126. Examples, both positive and negative, of these categories of factors with implications for ecological character features are given below.

- i) **Internal natural factors** - include natural succession in vegetation and variations in water level caused by precipitation.
- ii) **Internal human-induced factors** - include the spread of invasive alien species, on-site pollution, and inappropriate, or unsustainable, agricultural practices (for further guidance on managing invasive alien species, see Resolution VIII.18).
- iii) **External natural factors** - include factors arising outside the wetland, such as positive or negative impacts of climate change and variations in currents or sea level (for further guidance on mitigating the impacts of climate change and sea-level rise through wetland management, see Resolution VIII.3).
- iv) **External human-induced factors** - include diversion of water supply, changing natural pattern and variability of water flows, effective water allocation regimes, increased or decreased sedimentation caused by upstream engineering works, and pollution.
- v) **Factors arising from legislation, tradition** - include legal and traditional rights and obligations placed on the managers of the site. Legal obligations can arise from national or local legislation or international commitments, with national and local laws likely to be the more important factor. Traditional and culture issues may include grazing, fishing, and logging rights and/or religious aspects (see Ramsar's *Guidelines for establishing and strengthening local communities' and indigenous peoples' participation in the management of wetlands*, Resolution VII.8, and *Guiding principles for taking into account cultural values of wetlands for the effective management of sites*, Resolution VIII.19).
- vi) **Conflicts/communality of interest** – includes the likely opposition or support of different stakeholders, depending on whether they see the management plan as contributing to maintain their benefits or not, or providing an opportunity to develop their interests.
- vii) **Physical considerations and constraints** - include physical factors, such as inaccessibility, which may affect the achievement of management objectives.
- viii) **Institutional factors** – includes any limitations to the capacity and authority of organisations responsible for plan implementation, and the inter-relationship (or lack of it) between the organisations or agencies responsible for wetland conservation

and wise use and those responsible for other sectors directly or indirectly affecting the wetland, at local, regional (sub-national) and national scales.

### **The relationship between factors and features**

127. Once the factors have been identified, the effect that they will have on the feature must be considered. The influence of factors should be considered for each identified feature in turn.
128. Features will change as a consequence of the factors, and it is important that the direction of change and any potential indicators of change should be identified. This relationship between factors and the selection of appropriate performance indicators is very important. It is not possible to measure everything on a site; managers must focus, therefore, on monitoring those indicators that are most likely to change.
129. It is essential that both the features and the factors which influence these features be monitored.

### **Operational limits**

130. The purpose of operational limits is to define a range of values for each factor which will be considered acceptable and tolerable levels.
131. The most significant factors provide a focus for surveillance or monitoring. These factors will have a positive or negative impact on the ability to manage features. Acceptable levels should be defined for any factors known to have a significant impact on the features. For example, it is often necessary to set a level of tolerance for an invasive alien species, which could be anything from total exclusion to accepting the presence of a species providing the population remains below a given limit. Other examples could include biological limits, such as a limit on the extent of scrub cover in wet grassland, and limits on human activities such as hunting or fishing.
132. Operational limits require an upper or a lower limit, or sometimes both. In reality, though, both upper and lower limits are seldom applied to the same factor. Upper limits are usually applied to undesirable factors - they define the maximum tolerance - and lower limits are applied to positive factors.
133. In most instances it will not be possible to set precise, scientifically defined limits. This should not be considered a major issue, however. Operational limits are an early warning system, acting as a trigger for action, reached long before there is any significant threat to the long-term viability of the feature. If scientific information is not available, then professional experience comes into play.
134. Key questions concerning operational limits for factors are:
  - i) to what extent can a negative factor be allowed to influence a feature before there is any need for concern; and
  - ii) to what extent is it necessary to ensure that positive factors are maintained.

135. It should be remembered that limits, like objectives, are not fixed forever – they can be revised later if experience, or new scientific information, suggests that it is expedient to do so.
136. An example to illustrate the process and links between identifying a feature, a factor affecting it, an objective for its management, and the setting of operational limits is given in Box 3.

**BOX 3. An example of the management planning process for identifying features, factors, objectives and operational limits.**

**Feature:** an important population of a globally threatened endemic fish species (for which the site was selected for Ramsar designation under Criteria 2 and 7).

**Factor:** the fish species is targeted for capture by recreational fisherman, which may be threatening the viability of the fish population.

**Objective:** the maintenance of a viable population of the fish species, through the establishment of controls on the recreational fishery.

**Operational limits** (adopted under the management plan following consultation and agreement with local stakeholders):

- a) a limit on the number of fisherman allowed to catch the fish (through establishing a permit system);
- b) a limit on the number of fish of this species that may be taken (e.g., each fisherman may take only three individuals during one fishing season, with all others to be released); and
- c) a limit on the minimum size of fish of this species that may be taken (e.g., only adult fish longer than 20 cm may be taken, with all others to be released).

### **Monitoring of factors**

137. It is essential that the factors which are influencing or may influence the features are monitored or recorded.
138. Factors which have been quantified and are subject to the operational limits described in the preceding paragraphs must be monitored. For example, the degree of tolerance of an alien invasive species in a habitat will be expressed as an upper limit. Once a limit has been set, the invasive species must be monitored to ensure that its population does not exceed the limit. When and if the limit is exceeded, management or control will be implemented.
139. Recording or surveillance will be required when the relationship between a feature and a factor is unclear. For example, one of the factors that will affect grassland is grazing by wild animals. When the impact of the animals on the vegetation is unknown, it will not be possible to identify the appropriate stocking levels. In this case, a recording programme is required to record, in a structured and consistent manner, the number of grazing animals. In time, it may be possible to establish what the stocking levels should be, and move from surveillance to monitoring.

### **Environmental Impact Assessments (EIA)**

140. The preceding section explains why the important factors must be identified and monitored, and recommends that their impact on the wetland features must be considered in the management plan. Minor, or easily controllable, factors can be dealt with as set out above. However, any major proposals for development or land use changes, on or off the site, may require that an Environmental Impact Assessment be undertaken before the site management plan can be completed. In circumstances where there is more than one proposal, the EIA should take into account the cumulative impact of the proposals.
141. In addition, any new factors, including development proposals, on or off the site, that are likely to have a significant impact on the ecological character of the site, should be subject to a full EIA. A monitoring system should be set in place to ensure that unforeseen impacts are detected, and a process to address negative impacts put in place before the project commences.
142. An EIA may conclude that a development proposal is likely to have a significant negative impact on all or part of the site. If, for overriding reasons, the project is still planned to go ahead, minimization of damage, mitigating measures, and/or compensating measures should be established.
143. For further guidance on impact assessment for wetland sites, see Resolution VII.16 and the guidance adopted by Resolution VIII.9.

### **Step 3. Performance indicators, limits and monitoring**

144. Objectives must be quantified and measurable. This stage in the planning process identifies the performance indicators that will be used to provide evidence about the condition of a feature.
145. Because it is not possible to measure the totality of a feature, there is a need to focus on a limited range of performance indicators. For example, under a management objective of maintaining water quality, this feature is made up of many components including salinity, pH, conductivity, dissolved oxygen concentration, nutrient concentration, heavy metal concentration, etc. Not all of these are likely to be easy or cost-effective to monitor, but an appropriate performance indicator for water quality, because it meets the four criteria below, would be nutrient concentration.
146. In general, performance indicators:
  - i) are characteristics, qualities or properties of a feature that are inherent and inseparable from that feature;
  - ii) should be indicators of the general condition of a feature, and should be informative about something other than themselves;
  - iii) must be quantifiable and measurable; and
  - iv) should provide an economical method for obtaining the evidence required to enable the current condition of a feature to be determined.

147. Some general examples of performance indicators for the species and habitat components of ecological character features are:

i) **Performance indicators for species:**

a) *Quantity:*

The size of a population, for example:

- the total number of individuals present
- the total number of breeding adults
- the population at a specified point in an annual cycle
- the extent or distribution of a population

b) *Quality:*

- survival rates
- productivity
- age structure

ii) **Performance indicators for habitats:**

a) *Quantity:*

- size of area occupied by the habitat
- distribution of the habitat

b) *Quality:*

- physical structure
- individual or groups of species indicative of condition
- individual or groups of species indicative of change

148. Performance indicators for socio-economic and cultural features should also be identified and incorporated into the management plan.

### **Specified limits**

149. Specified limits represent thresholds for action and should trigger an appropriate response. They define the degree to which the value of a performance indicator is permitted to fluctuate without creating any cause for concern. Thus, ideally, two values are required, an upper limit and a lower limit. Unfortunately, it is not always possible to define both limits.

150. The key to understanding limits is an appreciation of what should happen when a limit is exceeded.

151. In order to define what happens when a limit is exceeded, it is necessary:

- i) to check the monitoring project and the data collected to ensure that there are no errors. If everything is in order, proceed to the next step. If not, amend the monitoring project.

- ii) if a change has taken place and the limit has been exceeded, to find out why the change has occurred. Changes happen because of the impact of a factor, or factors, or the lack of appropriate management. Where the factors, or failure of management, are known, it may be necessary to carry out remedial management to deal with the factor or improve existing management.
  - iii) when a change has taken place and the reason is unknown, to establish a research project to identify the cause.
152. Limits for ecological character features should be developed in recognition of the natural dynamics and cyclic change in populations and communities. In reality, there are very few features for which the natural fluctuations are fully understood. For a population, the lower limit might be the threshold beyond which a population will cease to be viable. The upper limit could be the point at which a population threatens another important population, or where a population becomes so large that it compromises the habitat that supports it.
153. Even if a viability threshold is known, it would be very unlikely that a manager would set a limit close to a point of possible extinction. A sufficient safety margin must always be allowed to account for the possibility of unexpected changes or unforeseen impacts. In many ways, limits can be regarded as limits of confidence. When the values of all performance indicators fall within the limits, it can be confidently considered that the feature is at favourable conservation status; when the limits are exceeded, that confidence disappears.
154. Limits for ecological character features may be closely related to suitable use and carrying capacity limits. Thus, limits of human activities/interventions should also be clearly established and monitored.

### **Monitoring performance indicators**

155. Whenever performance indicators are established they must be monitored. That is their entire purpose. The measurement of the performance indicators provides the evidence that is used, in part, to determine the condition of the features.
156. For further guidance on indicators and monitoring, including designing a wetland monitoring programme, see Resolution VI.1 and Ramsar's *Wetland Risk Assessment Framework*, including guidance on early warning indicators (Resolution VII.10).

### **Recommended structure for presenting objectives**

157. Once appropriate indicators and a monitoring programme have been identified, the remaining task is to write a succinct and easily understood objective statement.
158. For each feature, begin with the description of the condition required for the feature, followed by the operational limits and the selected performance indicators, with defined limits.

## **XVI. Rationale**

159. The rationale section of the plan is devoted to identifying and describing, in outline, the management considered necessary to maintain the site features in (or restore them to) favourable status. Decisions in this section are based on a second assessment of the factors. This time, the discussion focuses on seeking management solutions in order to bring the factors under control. Control can mean the removal, maintenance or application of factors. For example, grazing is an obvious factor for wet grassland habitats. Options to be considered here could include removing, reducing, maintaining current levels, increasing, or introducing grazing.
160. On all sites there will be a number of other responsibilities, obligations, and tasks that will need to be addressed, but which arise for reasons other than the management of features. It is important that these other obligations be included in the management plan, particularly since they can have substantial resource implications.

### **Compliance with legal and other obligations**

161. Operational objectives need to be prepared to ensure compliance with legal and other national obligations (for example, health and safety regulations). These are not strictly objectives in the same sense as the objectives which are defined for the features. They are, in fact, prescriptions, or the operations that must be carried out in a site to ensure that the prime feature objectives are met. However, for most sites it is difficult, and would be extremely cumbersome, to attempt to associate all activities with the individual feature objectives. This would be particularly repetitive when an activity is being carried out in respect of many of the features.

### **Management of site infrastructure and major operational and logistical support services**

162. This section of the management plan is devoted to the development of operational objectives and associated management projects to ensure that an infrastructure adequate to meet the purposes of the site is provided. It will also include objectives for major operations and for support services. For example, for many sites it will be necessary to maintain a network of access routes within the site in order to undertake the management actions to implement the plan.

## **XVII. Action plan (management projects and review)**

### **Management projects**

163. This section is a continuation of the rationale. In the rationale, the need for, and the nature of, possible management will have been discussed. The outcome should be an outline of the management processes considered most appropriate to safeguard each feature. The function of the management project is then to describe in detail all the management work that will be associated with each feature.
164. For each management project, it is important that the following issues be given attention:

<b>When</b>	when the work will be carried out and for how long
<b>Where</b>	where on the site activities will take place
<b>Who</b>	who will do the work and how much time will be required

<b>Priority</b>	what priority is given to the project
<b>Expenditure</b>	how much the work will cost

165. Once the management projects have been developed, for operational purposes it can be appropriate to compile the suite of management projects into an annual Operational Plan which is designed to guide and assist in monitoring implementation.

### **Planning for visitors, tourism and recreation**

166. Objectives, prescriptions and management projects should be developed for public access and tourism based upon an approach similar to that used for features. Public access and tourism are taken in their widest meaning and include anyone who visits the site for any reason other than official purposes. Access and tourism can make a significant contribution towards the costs of managing Ramsar sites. Ramsar sites can attract significant numbers of visitors, and this can often be of considerable benefit to the local, and even national, economy. There should be a positive presumption in favour of providing access and appropriate facilities for visitors.
167. All activities carried out in a Ramsar site require planning, and the provision of interpretation is no exception. Interpretation is concerned with providing information in an attempt to enhance the visitors' experience and to help them understand, and thus appreciate, the value of the protected area's environment and its features. Interpretation is an essential tool that can be used for a variety of purposes. Interpretation is not an end in itself but a means, through influencing others, of helping to achieve organizational and site-specific objectives.
168. For further guidance, see the Convention's Programme on Communication, Education, and Public Awareness (CEPA), adopted by Resolution VIII.31 and the Convention's CEPA Web site ([http://ramsar.org/outreach\\_index.htm](http://ramsar.org/outreach_index.htm)).

### **Annual or short term reviews**

169. A short-term review should be made to confirm that a site is being managed in accordance with the requirements of the plan.

### **Major review or audit**

170. Major reviews or audits should be considered as an essential component of any planning process. The functions of audit are to:
- i) assess whether or not a site is being managed at least to the required standard;
  - ii) confirm, as far as possible, that management is effective and efficient; and
  - iii) ensure that the status of the site features is being accurately assessed.
171. The audit process is best, though not always necessarily, carried out by external auditors. It is a constructive process which should identify any problems or concerns and seek to provide recommendations for resolving any issues.

172. Reviews and audit will usually be carried out in accordance with a predetermined timetable. The interval between reviews will be a reflection of the confidence that managers have in their ability to protect the site features. For sites with robust features which are easily managed, the interval may be five years or more. However, for fragile sites, where threats are not readily controlled, the interval should be much shorter.
173. On all sites, reviews should be undertaken at any time if new or unforeseen threats become apparent. It is essential that the timing of the planning process be adjusted to meet the requirements of the site.
174. For sites on the Ramsar List which have been included in the Montreux Record owing to recognized threats to their ecological character, a Ramsar Advisory Mission can be regarded as one form of review and/or audit.

**"Wetlands: water, life, and culture"**  
**8th Meeting of the Conference of the Contracting Parties**  
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**Valencia, Spain, 18-26 November 2002**

## **Resolution VIII.19**

### **Guiding principles for taking into account the cultural values of wetlands for the effective management of sites**

1. ACKNOWLEDGING that the ancient and intimate links of traditional societies to wetlands and water have given rise to important cultural values relevant to wetland conservation and wise use, which have been recognized in the diverse cosmologies of different civilizations and cultures throughout history;
2. FURTHER ACKNOWLEDGING that the specific physical features of wetlands have contributed to particular ways of managing traditional activities through structures, procedures, techniques and specially designed artefacts which are of great cultural significance;
3. RECOGNIZING that peoples' relations with wetlands have given rise to aspects of non-material culture, through folklore, music, mythology, oral traditions, customs, traditional knowledge and popular wisdom, and that their reflection can be found in social practices and the traditional forms of social organization for managing wetland resources, and especially water;
4. FURTHER RECOGNIZING that sustainable traditional uses of wetland resources have frequently created cultural landscapes of significant value to wetland conservation and wise use;
5. AWARE that the cultural values of wetlands have been and still are of great importance to societies living in wetlands and their surroundings, and constitute part of their identity; thus their loss may not only contribute to their alienation from wetlands, but also cause significant negative social and ecological impacts;
6. RECOGNIZING that cultural knowledge of wetlands constitutes a collective legacy for today's societies;
7. AWARE that most of the knowledge about practices, and practices themselves, of traditional wetland management in the diverse cultures have contributed to wetland conservation and wise use over millennia, and continue to contribute to it;
8. FURTHER AWARE that in addition to their spiritual dimension of this knowledge and other aspects of past wetland management, such values can be of considerable socio-economic importance, since they can be used as a resource for sustainable tourism and recreational activities and, through them, contribute to an increase of income and quality of life for the inhabitants;

9. CONSCIOUS of the fact that the adequate recognition of and support for cultural heritage, both material and non-material, is an indispensable component in any process for the sustainable use of wetland resources;
10. RECOGNIZING that there are important weaknesses and gaps in the procedures and methods for identifying, valuing and protecting the cultural heritage of wetlands, as well as in defining and implementing policies related to them;
11. NOTING that the profound and rapid social and economic transformations that have taken place during recent decades have increasingly threatened the adequate preservation of the cultural heritage that is typical of wetlands in many parts of the world;
12. RECOGNIZING that there are various multilateral agreements and organizations that work to recognize and protect cultural values and relationships with ecosystems including wetlands;
13. ACKNOWLEDGING that the Ramsar Convention needs to work in cooperation with multilateral and regional agreements and other bodies addressing the need for resolute action to preserve the cultural heritage, including among others:
  - the Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972);
  - the Call of Granada (1975) of the Council of Europe on Rural architecture and its landscape;
  - Recommendation 881 (1979) of the Parliamentary Assembly of the Council of Europe on Rural architecture heritage;
  - UNESCO's activities in the promotion of the conservation of cultural heritage;
  - the general principles for conservation proposed by the Vernacular Built Heritage Charter (Jerusalem, 1996), ratified by the XI General Assembly of the International Council of Monuments and Historical Sites (ICOMOS);
  - the various recommendations of the World Intellectual Property Organization (WIPO) for the protection, conservation, legal status, economic exploitation, and international protection of folklore;
  - the Convention on Biological Diversity, in particular concerning its Decision VI/10 of the Conference of the Contracting Parties on the *Outline of the composite report on the status and trends regarding the knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity*, and the plan and timetable for its preparation; and on *Recommendations for the conduct of cultural, environmental and social impact assessment regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities*;
  - the European Landscape Convention (Florence, 2000);
  - the Convention concerning Indigenous and Tribal Peoples in Independent Countries (International Labour Organisation No. 169, 5 September 1991); and
  - the Permanent Forum of Indigenous People.
14. RECALLING that *inter alia* the text of the Ramsar Convention already recognizes, in the third paragraph of its preamble, "that wetlands constitute a resource of great economic,

cultural, scientific, and recreational value, the loss of which would be irreparable” and FURTHER RECALLING that COP7 adopted *Guidelines for establishing and strengthening local communities’ and indigenous peoples’ participation in the management of wetlands* (Resolution VII.8); and

15. NOTING the background documentation and examples on the cultural aspects of wetlands from around the world presented during Technical Session 5 of this meeting of the Conference of the Parties;

#### THE CONFERENCE OF THE CONTRACTING PARTIES

16. TAKES NOTE WITH INTEREST of the list of *Guiding Principles* included in the Annex to this Resolution;
17. REQUESTS that the Ramsar Bureau seek inputs from Contracting Parties, experts and practitioners, and local communities and indigenous peoples from around the world to enhance the information paper on cultural aspects of wetlands (COP8 DOC. 15) and the detailed guidance prepared for consideration by this meeting of the Conference of the Parties, with a view to publishing it as a background document, and to inform COP9 of the progress made;
18. ENCOURAGES Contracting Parties to consider using the list of *Guiding principles* included in the Annex to this Resolution, but only in relation the conservation and enhancement of the cultural values of wetlands;
19. FURTHER ENCOURAGES Contracting Parties, within their national and legal frameworks and available resources and capacity:
  - a) to consider the compilation and assessment of both material and non-material cultural elements related to wetlands and water, in particular when preparing the Ramsar Information Sheet (RIS) for the designation of new Wetlands of International Importance or when updating the RIS of existing Ramsar sites, taking into account, as appropriate, intellectual property rights, customary law, and the principle of prior informed consent, in accordance with CBD and WIPO rules;
  - b) to promote the appreciation and revitalization, of these cultural values among populations close to wetlands, and in general among the wider public;
  - c) to include relevant aspects of cultural heritage in both the design and implementation of wetland management plans;
  - d) to make efforts to integrate cultural and social impact criteria into environmental assessments, which could include, *inter alia*, issues of particular cultural concern, such as beliefs and religions, customary practices, forms of social organization, systems of natural resources use, including patterns of land use, places of cultural significance, sacred sites and ritual ceremonies, languages, customary lore/law systems, political structures, roles and customs;
  - e) to carry out such efforts with the active participation of indigenous peoples, local communities and other stakeholders, and to consider using the cultural values of

wetlands as a tool to strengthen this involvement, particularly in wetland planning and management;

20. ENCOURAGES Contracting Parties to recognize cultural and heritage values relating to wetlands in their existing heritage protection, legal framework and policies;
21. INVITES Contracting Parties to consider conducting appropriate joint educational and training activities with regard to the cultural values of wetlands, as well as to consider developing pilot projects for testing on a local, regional and national scale with a view to further improving the application and/or integration of the *Guiding Principles* in wetland conservation and wise use;
22. ENCOURAGES Contracting Parties to establish appropriate consultation mechanisms at regional or national levels, in order to consider how the *Guiding Principles* might be applied in developing and promoting the cultural values of wetlands; and
23. URGES Contracting Parties and the Ramsar Bureau to develop synergies and to avoid duplication of efforts with the relevant multilateral agreements, such as those mentioned in paragraph 13 above.

## Annex

### **Guiding principles for taking into account the cultural values of wetlands for the effective management of sites**

#### **General principles**

1. This document proposes a number of general principles for identifying, preserving and reinforcing the cultural values of wetlands, which could be supplemented with additional ones at future meetings of the Conference of the Parties as more knowledge and experience are obtained. Some of them may overlap, but this is only natural as cultural values are often related and require an integrative approach.
2. There is a strong link between wetland conservation and benefits to people. In addition, a positive correlation between conservation and the sustainable use of wetlands has been repeatedly demonstrated. Therefore, conservation requires the involvement of indigenous peoples and local communities and cultural values offer excellent opportunities for this.

Guiding principle 1 – To identify the cultural values and relevant associated partners.

Guiding principle 2 - To link the cultural aspects of wetlands with those of water.

Guiding Principle 3 - To safeguard the wetland-related cultural landscapes.

Guiding principle 4 - To learn from traditional approaches.

Guiding principle 5 – To maintain traditional sustainable self-management practices.

Guiding principle 6 – To incorporate cultural aspects in educational and interpretive activities in wetlands.

Guiding principle 7 – To take into account culturally appropriate treatment of gender, age and social role issues.

Guiding principle 8 – To bridge the differences of approach between natural and social sciences.

Guiding principle 9- To mobilise international cooperation in matter of culture issues related to wetlands.

Guiding principle 10 – To encourage research on palaeoenvironmental, palaeontological, anthropological and archaeological aspects of wetlands.

Guiding principle 11 – To safeguard wetland-related traditional production systems.

Guiding principle 12 – To protect historical structures in wetlands or closely associated with them.

Guiding principle 13 – To protect and preserve wetland-related artefacts (mobile material heritage).

Guiding principle 14 – To preserve collective water and land use management systems associated with wetlands.

Guiding principle 15 – To maintain traditional sustainable practices used in and around wetlands, and value the products resulting from these practices.

Guiding principle 16 – To safeguard wetland-related oral traditions.

Guiding principle 17 – To keep traditional knowledge alive.

Guiding principle 18 – To respect wetland-related religious and spiritual beliefs and mythological aspects in the efforts to conserve wetlands.

Guiding principle 19 – To use the arts to promote wetland conservation and interpretation.

Guiding principle 20 – To incorporate cultural aspects, where available, in the Ramsar Information Sheet (RIS) for the description of Wetlands of International Importance, whilst ensuring the protection of traditional rights and interests.

Guiding principle 21 – To incorporate the cultural aspects of wetlands in management planning.

Guiding principle 22 – To include cultural values in wetland monitoring processes.

Guiding principle 23 – To consider the use of institutional and legal instruments for conservation and protection of cultural values in wetlands.

Guiding principle 24 – To integrate cultural and social criteria into environmental impact assessments.

Guiding principle 25 – To improve wetland-related communication, education and public awareness (CEPA) in the matter of the cultural aspects of wetlands.

Guiding principle 26 – To consider the possibility of using quality labeling of sustainable traditional wetland products in a voluntary and non-discriminatory manner.

Guiding principle 27 – To encourage cross-sectoral cooperation.

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## **Resolution VIII.15**

### **The 'San José Record' for the promotion of wetland management**

1. RECALLING that Resolution VII.12 of Ramsar COP7, held in San José, Costa Rica, directed the Ramsar Bureau, with assistance from the Scientific and Technical Review Panel (STRP), to investigate and report to COP8 on the feasibility of the Convention establishing a record, to be called the "San José Record", of sites where management plans are being implemented which are models for demonstrating application of the Ramsar *Guidelines for the implementation of the wise use concept*;
2. WISHING to contribute to an ongoing consideration of the management of Ramsar sites and to encourage managers to share their experience and know-how;
3. SEEKING to support a process to enhance and exchange experiences between countries from all regions;
4. CONSIDERING the need to promote better management through full participation of local communities;
5. ALSO CONSIDERING the importance of training and transfer of technical know-how for the implementation of sustainable use of wetlands; and
6. TAKING ACCOUNT of the recommendations of the STRP, which considered that it is appropriate to establish the 'San José Record';

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7. APPROVES the establishment of the 'San José Record' for the promotion of wetland management and the mechanisms for its operation, as annexed to this Resolution, subject to the availability of resources;
8. DECIDES that the purpose of the 'San José Record' is to focus attention upon examples of effective management and exemplary practices implemented at Ramsar sites and other wetlands, including the process used to develop management plans and information about their costs, if available, and to make those plans, practices, and personal contacts available as examples and resources to other practitioners;
9. FURTHER DECIDES that the criteria for the acceptance of examples of effective management and exemplary practices onto the San José Record should be in line with national guidelines and/or local requirements and/or the *New Guidelines for management planning for Ramsar sites and other wetlands* adopted by this meeting through Resolution

VIII.14, and that such management examples should demonstrate and follow application of these guidelines;

10. INVITES Contracting Parties to make voluntary contributions towards the development and maintenance of the logistics of this Record;
11. REQUESTS the Ramsar Bureau, with the assistance of the STRP, to establish, resources permitting, the necessary procedures for the creation and maintenance of the San José Record;
12. ENCOURAGES Contracting Parties, the STRP, National Focal Points for Communication, Education, and Public Awareness (CEPA), the Convention's International Organization Partners, Ramsar site managers, and other bodies to identify examples of effective management and exemplary practices at Ramsar sites and other wetlands for listing on the San José Record, and to submit nominations for consideration through the approved procedure, once established; and
13. REQUESTS the Ramsar Bureau, with the assistance of the STRP, to assess the implementation of the San José Record and to report to COP9 on its achievements.

## Annex

### San José Record for the promotion of wetland management

#### 1. **Nomination** –

- 1.1 Examples of effective management and exemplary practices are proposed by the interested Contracting Party and management authority, with the endorsement of the corresponding National Ramsar/Wetland Committee (or equivalent) where it exists.
- 1.2 The Contracting Party shall submit:
  - 1.2.1 a copy of the management plan (or hyperlink);
  - 1.2.2 a case study<sup>9</sup>;
  - 1.2.3 certification of an authorized budget by the management authority; and
  - 1.2.4 a description of mechanisms for community participation.

#### 2. **Review** –

- 2.1 The Nomination package is reviewed by the concerned Ramsar Bureau's Regional Coordinator.
- 2.2 The Regional Coordinator prepares an evaluation report and recommends to the Standing Committee inclusion or not in the San José Record. Once accepted, the nomination package must be posted on the Ramsar Web site.
- 2.3 The Contracting Party must reapply every five years.

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<sup>9</sup> Case study prepared in a peer review technical journal; format: background, performance assessment, lessons learned, training, etc.

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**8th Meeting of the Conference of the Contracting Parties**  
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**Valencia, Spain, 18-26 November 2002**

## **Resolution VIII.8**

### **Assessing and reporting the status and trends of wetlands, and the implementation of Article 3.2 of the Convention**

1. RECOGNIZING that assessment of the status and trends of wetlands, and assessing and reporting on their ecological character and change in ecological character, provide an essential basis for improving understanding of the state of, and pressures on, wetland ecosystems at the global, regional and national scales in support of future policy development, decision-making and prioritisation under the Convention, and for management interventions on Ramsar sites and other wetlands;
2. RECALLING Article 3.1 of the Convention, whereby Contracting Parties have committed themselves to formulate and implement their planning so as to promote the conservation of wetlands included in the List of Wetlands of International Importance, and as far as possible the wise use of wetlands in their territory;
3. RECALLING ALSO that the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11) calls for the establishment of an international network of wetland sites built from coherent and comprehensive networks of Ramsar sites within the territory of each Contracting Party to the Convention, and that Objective 4.1 of the *Strategic Framework* concerns the use of the Ramsar site network for monitoring the status and trends of wetlands, specifically “to use Ramsar sites as baseline and reference areas for national, supranational/regional, and international environmental monitoring to detect trends in the loss of biological diversity, climate change, and the processes of desertification”; and CONCERNED that national and international mechanisms for detecting and reporting such trends under the Convention should be improved;
4. FURTHER RECALLING that under Article 3.2 of the Convention, each Contracting Party has agreed that it will arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference, and to report any such change, without delay, to the Ramsar Bureau;
5. NOTING that Resolution VI.1 interpreted ‘change in the ecological character of a site’ as meaning adverse change, caused by human activities, and noted that this excludes the process of natural evolutionary change occurring in wetlands;

6. CONCERNED that, according to available information including the National Reports to COP8, many Contracting Parties do not have in place the mechanisms to comply with Article 3.2, or that these are not being implemented;
7. FURTHER RECALLING that in Recommendation 4.8 the Contracting Parties instructed the Ramsar Bureau to maintain the “Montreux Record” of listed sites where change in ecological character has occurred, is occurring or is likely to occur; that in Resolution 5.4 they established guidelines for the operation of this Montreux Record and determined that its purpose should be, *inter alia*, to identify priority sites for positive national and international conservation attention; and that in Resolution VI.1 they adopted a revised procedure for its operation;
8. RECOGNIZING that many Ramsar sites have undergone or are undergoing change in their ecological character, or are likely to undergo such change, by virtue of the land use and other pressures affecting them, and NOTING that since its establishment 76 Ramsar sites have been included by Contracting Parties on the Montreux Record;
9. RECOGNIZING ALSO that the information fields contained in the Ramsar Information Sheet (RIS), as revised by Resolution VIII.13, used for the designation of Wetlands of International Importance should also form a statement of the ecological character of these wetlands and the factors affecting their character; but ALSO RECOGNIZING that Resolution VIII.7 calls for the Scientific and Technical Review Panel (STRP) to review and prepare further guidance on harmonising statements of ecological character in the RIS for wetland inventory and other purposes;
10. AWARE of the substantial body of tools and guidance already adopted by the Conference of the Parties to assist in the identification, assessment, and maintenance of the ecological character of sites on the List of Wetlands of International Importance and other wetlands, through inventory, assessment, monitoring and management, compiled and published as Ramsar Wise Use Handbooks 7 and 8; and ALSO AWARE that the tools and guidance for application of the *Strategic Framework and guidelines for the future development of the List* (Resolution VII.11) are applicable to all wetlands; and
11. RECOGNIZING that further guidance on these matters has been adopted by this meeting of the Conference of the Parties, notably the *New Guidelines for management planning for Ramsar sites and other wetlands* (Resolution VIII.14), which includes guidance on the assessment and monitoring of ecological character and the factors that affect it, the *Framework for Wetland Inventory* (Resolution VIII.6), and the *Principles and guidelines for wetland restoration* (Resolution VIII.16);

#### THE CONFERENCE OF THE CONTRACTING PARTIES

12. URGES Contracting Parties, as a matter of high priority, to put in place mechanisms in order to be informed at the earliest possible time, including through reports by national authorities and local and indigenous communities and NGOs, if the ecological character of any wetland in its territory included in the Ramsar List has changed, is changing or is likely to change, and to report any such change without delay to the Ramsar Bureau so as to implement fully Article 3.2 of the Convention, and to report on these matters in the National Reports prepared on the occasion of each meeting of the Conference of the Parties;

13. CONFIRMS that Article 3.2 reports should be made for types and causes of adverse, human-induced change in ecological character in order *inter alia* to provide the basis for analysis of status and trends in Ramsar sites in line with Objective 4.1 of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11);
14. REAFFIRMS that in accordance with Resolution 5.4 this information will be maintained as part of the Ramsar Sites Database reports by Contracting Parties in fulfillment of Article 3.2, and DIRECTS the Ramsar Bureau, in cooperation with Wetlands International, to prepare and circulate to all Contracting Parties a simple format for this reporting;
15. RECOGNIZES that reporting under Article 3.2 of the Convention does not substitute for the requirement as adopted by Resolution VI.13 for Contracting Parties to provide a fully updated Ramsar Information Sheet for each of their designated Ramsar sites at intervals of not more than six years, and URGES Contracting Parties to renew their efforts to provide such updated Ramsar Information Sheets in a timely manner;
16. REQUESTS the Scientific and Technical Review Panel (STRP), with the assistance of Wetlands International, the Ramsar Bureau, and other relevant organizations to prepare an analysis and report of the status and trends in the ecological character of sites in the Ramsar List for consideration by COP9 and each subsequent meeting of the Conference of the Parties, and to set, as far as possible, the status and trends of Ramsar sites within the wider context of the status and trends of marine, coastal and inland wetlands, drawing upon the results of the Millennium Ecosystem Assessment (MA) and other assessment initiatives as appropriate;
17. ALSO REQUESTS the STRP to prepare further consolidated guidance on the overall process of detecting, reporting and responding to change in ecological character, including guidelines for determining when such a change is too trivial to require reporting, having regard to the reasons why a given site is important and to the conservation objectives which have been set for it, and ENCOURAGES Contracting Parties in the meantime to take a precautionary approach;
18. RECOGNIZES that the establishment of a management planning process, in line with the guidance on management planning adopted by this meeting of the COP, on all Ramsar sites greatly facilitates the identification, reporting and resolution of changes in ecological character, and that inclusion in each management plan of an objective of maintenance of the ecological character of the site provides a basis for implementation of Article 3.1 of the Convention;
19. FURTHER RECOGNIZES that several response options and mechanisms are available to the Contracting Party concerned to address and resolve identified negative changes, or likely changes, in the ecological character of sites on the List, including *inter alia*:
  - a) when resources permit, using an established management planning process, including undertaking an environmental impact assessment, to guide implementation of appropriate management action;

- b) seeking the advice of the STRP, and its National Focal Points, on appropriate issues to take into account in addressing the matter, through the mechanism of requesting the Bureau to circulate the Article 3.2 pro-forma completed by the Contracting Party concerned to the STRP for comment;
  - c) for developing countries and countries with economies in transition, requesting resources to implement management action through the emergency assistance category of the Ramsar Small Grants Fund or seeking such resources from other relevant sources; and
  - d) listing, if appropriate, on the Montreux Record and requesting a Ramsar Advisory Mission (RAM) in order to bring international expertise to bear in providing advice on appropriate actions;
20. CALLS UPON Contracting Parties to maintain or restore the ecological character of their Ramsar sites, including utilizing all appropriate mechanisms to address and resolve as soon as practicable the matters for which a site may have been the subject of a report pursuant to Article 3.2; and, once those matters have been resolved, to submit a further report, so that both positive influences at sites and changes in ecological character may be fully reflected in reporting under Article 3.2 and in the reporting to all meetings of the COP in order to establish a clear picture of the status and trends of the Ramsar site network at three-year intervals;
21. REAFFIRMS, in accordance with the *Guidelines for the operation of the Montreux Record* (Annex to Resolution VI.1), that the Montreux Record is the principal tool of the Convention for highlighting those sites where an adverse change in ecological character has occurred, is occurring, or is likely to occur and which are therefore in need of priority conservation action, and ACKNOWLEDGES that the voluntary inclusion of a particular site on the Montreux Record is a useful tool available to Contracting Parties in circumstances where:
- a) demonstrating national commitment to resolve the adverse changes would assist in their resolution;
  - b) highlighting particularly serious cases would be beneficial at national and/or international level;
  - c) positive national and international conservation attention would benefit the site; and/or
  - d) inclusion on the Record would provide guidance in the allocation of resources available under financial mechanisms;
22. ENCOURAGES Contracting Parties, when submitting a report in fulfillment of Article 3.2, to consider whether the site would benefit from listing on the Montreux Record, and to request such listing as appropriate; and
23. REQUESTS Contracting Parties with sites on the Montreux Record to regularly provide the Ramsar Bureau with an update on their progress in taking action to address the issues for which these Ramsar sites were listed on the Record, including reporting fully on these matters in their National Reports to each meeting of the Conference of the Parties.

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**Ramsar COP8 DOC. 20  
Information paper  
English only**

## **Assessing and reporting the status and trends of wetlands, and the implementation of Article 3.2 of the Convention concerning change in the ecological character of Ramsar sites**

Note: This paper relates to draft resolution COP8 – DR 8. It has been prepared by the Ramsar Bureau and members of the Scientific and Technical Review Panel's Expert Working Group on Ecological Character.

### **Summary of issue**

Article 3.2 of the Convention provides a precise and strict requirement for the notification of change in the ecological character of a Ramsar site: "Each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List [of Wetlands of International Importance] has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. Information on such changes shall be passed without delay to the organization or government responsible for the continuing bureau duties specified in Article 8" [the Ramsar Bureau.

Implicit in the terms of Article 3.2 is that the Ramsar Administrative Authority in each Party needs to establish a mechanism by which those responsible for each Ramsar site will be aware of the requirements of Article 3.2 and will report to the Administrative Authority when a change or likely change in ecological character has been detected. In turn, for those locally responsible for a Ramsar site to detect and report such change, or likely change, a monitoring mechanism must be in place at the site, and the COP has recommended that this should form part of the management planning process for all Ramsar sites.

### **Background**

1. This paper provides: a) a brief review of the importance and purposes of assessing the status and trends in the health of wetlands; b) information on the currently available extent of such assessments; and c) a review of the extent of implementation of Article 3.2 of the Convention, which requires reporting without delay change, or likely change, in the ecological character of sites designated as Wetlands of International Importance. This requirement also relates to the mechanism of the Montreux Record established by the COP.

2. In the 2000-2002 triennium, the Scientific and Technical Review Panel (STRP) established an Expert Working Group on the Ecological Character of Wetlands. The Working Group undertook a review of the existing mechanisms and guidance under the Convention for the inventory, assessment, monitoring, and management of Ramsar sites and other wetlands, and it recognised the relevance of these tools for the application of Article 3.2.
3. The STRP concluded that much guidance has already been adopted by the COP concerning assessing and reporting the status of Ramsar sites and other wetlands, and that additional relevant guidance has been prepared by the STRP for consideration by COP8. This includes the *New Guidelines for management planning for Ramsar Sites and other wetlands* (Ramsar COP8 – DR 14), with guidance on the assessment and monitoring of ecological character features and the factors that affect them, the *Framework for Wetland Inventory* (Ramsar COP8 – DR 6), and the *Principles and guidelines for wetland restoration* (Ramsar COP8 – DR 16).
4. However, the STRP review also identified a number of gaps and disharmonies amongst the guidance to Contracting Parties arising from different elements of this guidance being prepared at different times, and recommended that COP8 consider a draft resolution on this matter (COP8 – DR 7). It also urged that an Information Paper be prepared concerning elements and priorities for a potential framework for integrated wetland inventory, assessment and monitoring (COP8 DOC. 16) to further assist Parties in these matters.
5. The 26<sup>th</sup> Meeting of the Standing Committee in 2001 also discussed matters concerning: a) the purpose and importance of assessing the status and trends of wetlands; b) the use of Ramsar's guidance by Parties in identifying change in ecological character of Ramsar sites; c) reporting this in line with Article 3.2 of the Convention; and d) implementing appropriate management responses to such change.
6. Subsequently a discussion paper on these matters was considered by the Standing Committee's Subgroup on COP8 in May 2002, which requested that a revised text be made available to COP8 as the present Information Paper.

### **The purposes of assessing and reporting the status of Ramsar sites and other wetlands**

7. The delivery of the conservation and wise use of wetlands in line with the commitments embodied in the Ramsar Convention entails: a) establishing the location and ecological characteristics of wetlands (baseline inventory); b) assessing the status, trends and threats to wetlands (assessment); c) monitoring the status of wetlands and trends, including the identification of existing threats and appearance of new threats (monitoring); and d) taking management actions (both *in situ* and *ex situ*), including the redress of any such changes causing or likely to cause damaging change in ecological character (management). Further discussion of steps towards establishing an integrated framework under the Convention for wetland inventory, assessment and monitoring, and the tools and guidance currently available through the Convention, is contained in Ramsar COP8 DOC. 16.
8. At the site scale, the Convention's guidance on management planning, including the *New Guidelines for management planning for Ramsar sites and other wetlands* (COP8 – DR 14), stresses that establishing the ecological character of a site in terms of its features and ecological processes, and the factors that are positively or adversely affecting this character or are

likely to do so, is essential to the implementation of an effective management process, so as to maintain the wetland in a favourable conservation status. This requires assessing and stating the ecological character of the site, stating the conservation objectives designed to maintain the ecological character in implementation of Article 3.1 of the Convention, and establishing a monitoring regime to detect *inter alia* changes in this character, both positive and negative, natural and human-influenced, in order to take appropriate management intervention, as necessary.

9. At national and international scales, an understanding of the status and trends in the health of wetlands has been recognised through the Convention as an essential basis for the establishment of national and international policies, strategies, and priorities for actions to assure the conservation and wise use of wetlands.
10. Monitoring the conservation status of Ramsar sites should also provide an important 'health check' of the success of the Ramsar Convention as an international treaty and its mechanisms for achieving wetland conservation and wise use.

#### **Adequacy of available information to assess wetland status and trends**

11. Current knowledge of national and international (regional and global) distribution of the wetland resource is widely acknowledged to be generally poor. There is even less information available on wetland status and trends.
12. Concerning baseline wetland inventory, the *Global Review of Wetland Resources and Priorities for Wetland Inventory* (GRoWI) undertaken for the Convention in 1999 found that adequate or comprehensive national wetland inventory existed for only 7% of countries, that no wetland inventory information was available for 25% of countries, and that very few inventories provided any information on the status and trends of the wetlands surveyed. However, this situation may be improving somewhat: a provisional analysis of National Reports to COP8 reveals that 27 Contracting Parties (23% of those Parties submitting a Report) indicate that they have a comprehensive national wetland inventory.
13. The 2001 *Pilot Assessment of Global Ecosystems: reports on Freshwater Ecosystems and Coastal Ecosystems*, prepared by the World Resources Institute (WRI) in support of the Millennium Ecosystem Assessment, summarised available information sources on inland wetlands. It likewise recognised that although status and trends information exists on certain features of wetland ecosystems and biodiversity from a variety of surveys in different parts of the world and at different spatial scales, this information is inadequate to establish confidently the global wetland status and trends in biodiversity loss. Furthermore, much of such information exists as a snapshot in time and is not recent, so current status is even more difficult to establish. A further report, prepared in 2002 by WRI for the Convention on Biological Diversity and Ramsar on the *Status and trends of inland water biodiversity* provides a more detailed review, particularly for wetland-dependent species, and confirms this view.
14. Nevertheless, some programmes do exist that monitor and regularly report status and trends of some features of wetland biodiversity. For example, Wetlands International's International Waterbird Census compiles and statistically analyses status and trends of waterbird biogeographical populations in several parts of the world, and comparable programmes cover some other regions. Their *Waterbird Population Estimates* review, produced regularly in support of the Ramsar Convention and the application of Criterion 6

for the identification and designation of Ramsar sites, provides a global assessment of best available knowledge of all biogeographic populations of many waterbird families.

15. Other ecosystem assessment initiatives, notably the Millennium Ecosystem Assessment (see Ramsar COP8 DOC. 8), are currently underway and are likely to help to improve understanding of the state of knowledge of wetland status and trends.
16. A novel assessment of the status of Ramsar sites is currently being prepared by the World Wide Fund for Nature (WWF), which analyses the information provided by Ramsar Contracting Parties in the Information Sheets on Ramsar Wetlands (RIS) as summarised by Wetlands International in the *Ramsar Sites Directory*. Preliminary results reveal that the quality of management planning of Ramsar sites has improved since designation in several regions, but that the reported level of threats to sites remains undiminished. It is recognised, however, that much of this information is dated (see below for comments on the limited extent of updating of RISs). Furthermore, this study has only been able to assess the status of management practices and reported threats to Ramsar sites. It has confirmed that it is not possible, owing chiefly to the original purpose and information fields of the RIS, to analyse reliably the ecological character status and trends of Ramsar sites from the information in RISs provided by Contracting Parties.

### **The Convention's mechanisms for assessing and reporting status, trends and changes in ecological character of wetlands**

#### **Assessment of overall status and trends in wetlands**

17. There is no mechanism or procedure established under the Convention for assessing the status and trends of all wetlands. Nevertheless, a number of decisions taken by the COP have recognised the value and need for such information, in order to implement Article 3.1 of the Convention on the conservation and wise use, as far as possible, of wetlands in their territory.
18. The need and priority for comprehensive wetland inventory was recognised in Resolution VII.20, as a basis for *inter alia* policy development, as well as identification and designation of Ramsar sites. Likewise, the Convention's guidance on management planning (Resolution 5.7 and Ramsar COP8 – DR 14), which includes approaches to defining ecological character of wetlands and monitoring, recognises that this is equally applicable to both designated Ramsar sites and other wetlands.
19. However, Convention's focus of attention has been on assessing and reporting the status and change in ecological character of Ramsar sites in relation to Articles 3.1 and 3.2 of the Convention. Nevertheless, given the general lack of adequate, available information on where wetlands are (inventory) and what is happening to them (monitoring and assessment) in terms of their overall capacity to deliver their goods and services as a basis for achieving the intent of Article 3.1, it may be increasingly appropriate to consider developing further guidance on these matters to assist Contracting Parties.
20. In addition, assessment of change in ecological character under the Convention has focused on detecting only adverse, human-induced change (see further explanation below). Therefore it is not possible to use analyses based on these Convention reporting mechanisms to assess overall changes in status of Ramsar sites, since the mechanisms do

not allow for assessment of positive changes, including those as a consequence of management interventions. Thus any such analysis is likely to paint an unduly pessimistic picture of wetland status and trends.

21. As part of the work of the Millennium Ecosystem Assessment (MA) (see Ramsar COP8 DOC. 8), a multi-scalar methodology and guidelines for undertaking sub-global ecosystem assessments has been developed and is being tested in a range of demonstration assessments at different spatial scales and under different conditions. This may offer a useful methodology for overall wetland assessment for application by Contracting Parties.

### **Describing ecological character**

22. A working definition of “ecological character” was developed by Resolution VI.1 and a revised definition adopted by Resolution VII.10:

*“Ecological character is the sum of the biological, physical, and chemical components of the wetland ecosystem, and their interactions, which maintain the wetland and its products, functions, and attributes.”*

*“Change in ecological character is the impairment or imbalance in any biological, physical, or chemical components of the wetland ecosystem, or in their interactions, which maintain the wetland and its products, functions and attributes.”*

23. The RIS prepared by Contracting Parties for the designation of a Ramsar site provides a general description of the ecological character of the site, including ecological character features and ecological processes. However, it is recognised that the structure of the RIS was not designed to provide a precise description of ecological character as the basis for assessment and monitoring.
24. Additional, more detailed guidance on describing the ecological character of a wetland is provided in Ramsar’s management planning guidance (Resolution 5.7, with new guidance to be considered by COP8 – Ramsar COP8 – DR 14)
25. The Ramsar *Framework for Wetland Inventory* (Ramsar COP8 – DR 6) recommends a set of ‘core data fields’ which can also form the basis for recording the ecological character of a wetland.
26. COP8 will consider proposals for further work by the STRP to provide more harmonised and comprehensive guidance on the description of ecological character for inventory, assessment and monitoring purposes, and the form of ecological character statements in the RIS. This is designed to further develop the integrated approach to wetland inventory, assessment and monitoring outlined in Ramsar COP8 DOC. 16.

### **Detecting change in ecological character**

27. To detect change in ecological character requires first establishing a clear status of that character and then establishing a monitoring regime to identify changes, or likely changes, in the character. Guidance on monitoring of Ramsar sites has been adopted by the Convention in Resolution VI.1 and as components of its guidance on management planning (Resolution 5.7 and COP8 – DR 14). Further guidance on predicting and

assessing change in ecological character as part of the management planning process is provided by the Convention's *Wetland Risk Assessment Framework* (Resolution VII.10).

28. For management planning purposes, monitoring of the objectives established in the management plan will include monitoring of change in ecological character. This needs to detect both beneficial and adverse changes in ecological character and also to understand what causes them, whether human-induced or natural, so that appropriate decisions about future management of the wetland can be made.
29. However, the definition of "change in ecological character" focuses upon adverse change only.
30. Resolution VI.1 clarifies that this was established based on interpretation of the context of Article 3.2 of the Convention, which requires reporting of change in ecological character "as the result of technological developments, pollution or other human interference", and Recommendation 4.8 which established the Montreux Record. However, in Article 3.2 itself it is only implicit rather than explicit that all such changes will be adverse to the ecological character of a wetland, given that, for example, human interference could be taken also to include management interventions that act positively to remove an adverse pressure.
31. Thus it is important to draw a clear distinction between two purposes of assessing and detecting change in ecological character on Ramsar sites:
  - i) for management planning purposes, where monitoring should be designed to identify both beneficial and adverse changes, including both natural and human-induced changes; and
  - ii) for the more specific purpose of reporting change or likely change in ecological character under Article 3.2, which concerns assessing and detecting only those changes that are of an adverse, human-induced nature.

### **Ramsar sites as a monitoring network**

32. Explicit in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11) is the objective that the Ramsar site network is to be used for monitoring wetland status and trends. Its Objective 4.1 determines "to use Ramsar sites as baseline and reference areas for national, supranational/regional, and international environmental monitoring to detect trends in the loss of biological diversity, climate change, and the processes of desertification."
33. It is unclear whether any Contracting Party is yet using its national network of Ramsar sites for such monitoring and reporting purposes, and no mechanisms are in place for such monitoring at supranational/regional or international scales. To do so implies that monitoring regimes at Ramsar sites established as part of the management planning process should be designed to yield such trend information, and that a mechanism is needed for reporting and compiling this information so as to report 'supra-nationally' on such trends.

34. Although, as for Article 3.2 reporting, the emphasis in Objective 4.1 is upon losses (i.e. adverse change), it should be noted that not all such trends, for example as a consequence of climate change, will necessarily be adverse, as is recognised by the STRP's report on climate change and wetlands (Ramsar COP8 – DR 3 and COP8 DOC. 11). Likewise, Objective 4.1 implies that the only changes in the biological diversity of wetlands will be losses, and it may be unduly pessimistic to make this assumption.
35. There is no guidance provided to Parties on how, and to whom, such information from monitoring Ramsar sites should be reported so as to respond to Objective 4.1 of the Strategic Framework. It may be appropriate to request the STRP to review this matter and advise on how such a reporting mechanism might be established in a coherent manner, linked to the collection of monitoring information as part of within-site management planning and to Article 3.2 reporting.

### **Reporting change in the ecological character of Ramsar sites under Article 3.2 of the Convention**

36. Article 3.2 of the Convention provides a precise and strict requirement for the notification of change in the ecological character of a Ramsar site: “Each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List [of Wetlands of International Importance] has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. Information on such changes shall be passed without delay to the organization or government responsible for the continuing bureau duties specified in Article 8” [the Ramsar Bureau]”.
37. Implicit in the terms of Article 3.2 is that the Ramsar Administrative Authority in each Party needs to establish a mechanism by which those responsible for each Ramsar site will be aware of the requirements of Article 3.2 and will report to the Administrative Authority when a change or likely change in ecological character has been detected. In turn, for those locally responsible for a Ramsar site to detect and report such change, or likely change, a monitoring mechanism must be in place at the site, and the COP has recommended that this should form part of the management planning process for all Ramsar sites.
38. Although definitions of “ecological character” and “change in ecological character” have been adopted, there is no guidance for establishing when a detected change would be important enough to require reporting it to the Ramsar Bureau, since the terms of Article 3.2 imply that any change, no matter how trivial, should be reported. Further guidance on this matter would assist Parties in meeting their Article 3.2 obligations.
39. Article 3.2 refers to reporting only human-caused changes in ecological character. There is, however, no guidance provided to Parties on how to distinguish such human-caused changes from naturally-occurring changes. In practice this can be difficult since, for example, an apparently natural change to a site may in practice be the consequence of a human-caused *ex situ* change, such as changes in the water management elsewhere in a river basin. Furthermore, changes observed as natural may be an indirect consequence of a human-caused change. An example would be ecosystem change that may be occurring as a consequence of global climate change perceived to be driven by human-caused increases in greenhouse gas emissions.

40. Such issues are implicitly recognised in Objective 4.1 of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* since this refers specifically to monitoring climate change-induced change on Ramsar sites.

#### **The Montreux Record as a mechanism for addressing adverse change in ecological character**

41. The Montreux Record of “Ramsar sites where changes in ecological character have occurred, are occurring or are likely to occur” was established by COP4 in 1990. Recommendation 4.8 instructed the Ramsar Bureau to maintain a record of such sites, and Resolutions 5.4 and VI.1 adopted procedures for the operation of this “Montreux Record”.
42. In Resolution 5.4 the Contracting Parties determined that the purpose of the Montreux Record “is to identify priority sites for positive national and international conservation attention”, and this Resolution and the Annex to Resolution VI.1 also indicated that the Record should be maintained as part of the Ramsar Sites Database.
43. The intent of Recommendation 4.8 and Resolution 5.4 was thus that the Montreux Record would serve as a primary mechanism for Contracting Parties to fulfil their commitments under Article 3.2 of the Convention.
44. However, the use of the Montreux Record has been interpreted by Contracting Parties in general as a mechanism for use in exceptional cases to draw attention to the need for action or support for those sites which are facing **serious adverse change** in ecological character. Some Parties have also interpreted the Montreux Record as a “black list” and have been hesitant to inscribe sites on it. Therefore, not all Ramsar sites facing change in ecological character are listed on the Montreux Record, and hence Article 3.2 is not being fully applied in this respect.
45. The Montreux Record questionnaire that is submitted by a Party when requesting inclusion of a site in the Record has been developed separately from the Information Sheet on Ramsar Wetlands (RIS) which forms the basis for the Ramsar Sites Database, and is not wholly compatible with the RIS and database structure. There is, however, potential to review the questionnaire and increase harmonisation of the information fields so as to facilitate future maintenance of the Montreux Record as part of the Ramsar Sites Database.

#### **Implementation of the Convention’s mechanisms for assessing and reporting ecological character**

46. Implementation by Contracting Parties of these mechanisms for assessing and reporting ecological character and change in this character has generally been inadequate to meet the provisions and expectations of the mechanisms described above.
47. Through Resolution VI.13 Contracting Parties committed to providing a fully updated RIS for each of their Ramsar sites at a maximum of six-year intervals. However, in practice very few such updates have been received by the Bureau – of the 854 Ramsar sites designated more than six years ago, 403 RISs (47%) have not yet been updated. It is not

possible, therefore, to review the time series information potential provided in RISs to establish status and trends.

48. As indicated above, it is unclear whether Ramsar sites are being used by Contracting Parties as a national network for monitoring trends in the loss of biodiversity, climate change and desertification, as envisaged by Objective 4.1 of the Strategic Framework (Resolution VII.11), and there is no supra-national mechanism established for such reporting.
49. It is also evident that few, if any, Contracting Parties are currently fulfilling their obligations under Article 3.2, since the Bureau receives very few such reports of change or likely change in ecological character directly from Administrative Authorities. That such changes or likely changes are occurring in many Ramsar sites is borne out by the information received by the Bureau on such matters from third parties (often local communities or local NGOs). There is therefore a need to provide further assistance and clarification to Contracting Parties concerning establishing mechanisms for identifying change and likely change in ecological character, and then reporting and resolving it.
50. Concerning the application of the Montreux Record, it is clear that since its inception eleven years ago it has not yet fulfilled its original intended role as a primary mechanism for Article 3.2 reporting, and also that its use by Contracting Parties for this purpose is progressively diminishing. Currently there are only 59 Ramsar sites (out of the current total of 1180 Ramsar sites as of July 2002) listed on the Montreux Record. Since it was established, a total of 76 sites have been listed by Contracting Parties, of which 17 have subsequently been removed from the Record, and a further two removed and then included again. Of the sites currently remaining on the Record, a large proportion have been listed at least eight years ago: 32 were listed in 1990 (the year of COP4) and a further 14 in 1993 (the year of COP5). However, since 1996 only six sites have been listed on the Record.
51. It is improbable that this progressive decrease in the number of sites being listed each year on the Montreux Record is a reflection of a global decrease in the pressures on, and threats to, Ramsar sites. Indeed, the WWF study outlined above has provisionally confirmed that the reported levels of threat to Ramsar sites remain undiminished.
52. Nevertheless, it is clear that the Montreux Record continues to provide a valuable tool under the Convention. Parties use the Record as a mechanism when they identify that a Ramsar site is facing particularly intractable problems of change in ecological character – problems which would especially benefit from international conservation attention, for example through a Ramsar Advisory Mission. The efforts by Parties to implement the advice of an Advisory Mission are in many cases substantial.
53. Essential for the detection of change or likely change in ecological character is the presence of an active monitoring regime at each Ramsar site, and the Convention's guidance is that this should form part of the site management planning process. However, at COP7 the Parties reported that management plans were in place and being implemented at only 44% of designated Ramsar sites. This situation does not appear to be improving, since provisional analysis of Parties' National Reports to COP8 indicates that only 35% of Ramsar sites now designated have a management plan in place and being fully implemented. Therefore, there remains a substantial number of Ramsar sites for which

there is no established mechanism being applied for detecting, reporting and responding to change.

### Conclusions and recommendations

54. A number of conclusions and recommendations may be drawn from this analysis:
- i) There is a need to stress and clarify the purpose and importance of assessing the ecological character of wetlands and reporting about it. An improved assessment of the status of and trends in wetland ecosystems should form the basis for future decision-making and prioritisation. In the case of Ramsar sites, this requires that the objective of maintaining the ecological character of the site be clearly incorporated in the management plan, as a means to comply with Article 3.1.
  - ii) It is not currently possible to report on national and international status of and trends in wetlands ecosystems based on information available to the Convention, either for Ramsar sites (in line with Objective 4.1 of the *Strategic Framework*) or wetlands in general.
  - iii) Clarification is needed of the purposes of monitoring and reporting change in ecological character, including which types of change should be assessed for each purpose, notably that:
    - a) for site management planning purposes, where monitoring should be designed to identify both beneficial and adverse changes and both natural and human-induced changes; and
    - b) for the more specific purpose of reporting change or likely change in ecological character under Article 3.2, which concerns assessing and detecting only those changes that are of an adverse, human-induced nature.
  - iv) Despite the establishment through the Articles of the Convention and Resolutions of the COP of a number of commitments and mechanisms for determining and reporting on ecological character and change in ecological character, these mechanisms are poorly applied by Contracting Parties, and there is a need to reaffirm the importance of Article 3.2 reporting and the establishment of within-site and within-country mechanisms to assess, report and, as necessary, respond to such changes.
  - v) Despite the existence of these various mechanisms and guidance, there is a need to provide further clarification and guidance to Contracting Parties on these matters, notably in:
    - a) providing coherent guidance on the overall mechanism;
    - b) monitoring and reporting change in ecological character for management planning, implementation of Objective 4.1 of the Strategic Framework for the Ramsar List, and Article 3.2 reporting purposes;

- c) establishing whether a detected change is of sufficient significance to the status of the site to warrant its reporting; and
  - d) providing a streamlined Article 3.2 reporting mechanism.
- vi) The original intent of the Montreux Record, that Article 3.2 reports should be held as part of the Ramsar Sites Database, should be reaffirmed, and analyses should be made of the status and trends information held in the Database for regular reporting to Contracting Parties.
  - vii) The importance of regular full updating of Ramsar Information Sheets (at intervals no longer than six years) should be reaffirmed, as complementary to the ‘without delay’ topical reporting under Article 3.2 of specific changes or likely changes to ecological character.
  - viii) The Montreux Record should be reaffirmed as an important and valuable mechanism of the Convention for Parties to identify and seek assistance, if necessary, in addressing threats to ecological character, particularly in cases where:
    - a) demonstrating national commitment to resolve the adverse changes would assist in their resolution;
    - b) highlighting particularly serious cases would be beneficial at national and/or international level;
    - c) positive national and international conservation attention would benefit the site; and/or
    - d) inclusion on the Record would provide guidance in the allocation of resources available under financial mechanisms.
  - ix) The Montreux Record might also be considered as a mechanism for generating good case study information on lessons learned in successfully tackling threats to ecological character, linked to elements of the proposed San José Record of Ramsar sites demonstrating good management practice (COP8 – DR 15).
  - x) A clear distinction should be drawn between reporting under Article 3.2 of all cases of adverse, human-induced change in ecological character (subject to clarification of guidance on changes too trivial to report) and the use of the Montreux Record for reporting and addressing threats to ecological character through the identification of “priority sites for positive national and international conservation attention”.
  - xi) The response options available to Contracting Parties to address threats to ecological character should be clarified, to include *inter alia*:
    - a) when resources permit, using an established management planning process, including undertaking an environmental impact assessment, to guide implementation of management action;

- b) seeking the advice of the Convention's Scientific and Technical Review Panel (STRP) on appropriate measures to take into account in addressing the matter, through the mechanism of circulation to the STRP for comment of a questionnaire completed by the Contracting Party;
- c) for developing countries and countries with economies in transition, requesting resources to implement management action through the emergency assistance category of the Ramsar Small Grants Fund or seeking such resources from other relevant project-based programmes; and
- d) requesting a Ramsar Advisory Mission (RAM) in order to bring international expertise to bear in providing advice on appropriate management actions.