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Workshop E Introduction

Wetland inventory and assessment – how are we progressing in understanding ongoing development processes and related ecological changes

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Wetland designations under the Ramsar Convention and the EU

Within Europe 44 countries are contracting parties to the Ramsar Convention on Wetlands (1971) and the European region has the largest number of designated Ramsar Sites of any Ramsar Region[1] with 798 Sites (including 37 in dependant territories outside of Europe). Collectively the Sites amount to over 60% of the total number of Sites, although by area, Europe's representation is more equitable.

In this region, wetland inventory assessment and monitoring is relatively advanced, thanks to the leading role of the Ramsar Convention in promoting the designation of Sites and in leading the development of national inventory and associated wetland policies. This has built the foundation within the EU 15 countries by the application of the Birds and Habitats Directives that have led to completion of the designation of SPAs (including existing Ramsar Sites) and a candidate list of SACs making up the Natura 2000 Site network. While Ramsar Sites may be designated quite selectively by Contracting Parties, Natura 2000 Sites must cover all qualifying habitat.

To simplify what is rapidly becoming quite a complex subject, the new enlarged EU 25 include countries with long established SPAs, candidate SACs, but with many countries that have neither, but are now obligated to identify and designate sites now grouped into a single Natura 2000 network. This biodiversity-focused network is subject to the EU 2010 targets to halt the decline in biodiversity, which is an even stricter version of the global CBD target to halt the increase in rate of loss of biodiversity.

The obligations placed on EU Member States to maintain favourable conservation status, and the adoption of the CORINE system of classification within some countries has led to a comprehensive landscape assessment which includes 198 natural habitat types and the CORINE Biotopes project established a hierarchical (scale related) classification system. Additionally, CORINE landcover classes are applied to assist satellite interpretation. The CORINE biotope system, while containing many detailed wetland vegetation types, does not adequately recognise wetlands, and the CORINE landcover classes are somewhat too coarse to usefully delineate wetland types. However, many alternative systems exist, for example the MedWet classification is extensively used and based on the scheme of Cowardin, adapted to the Mediterranean countries, while the EUNIS Habitat Types are used to support the Black Sea Environmental Programme, and groups A, B, C and D of that classification are wetland-related.

[1] Ramsar Regions are: Europe, Africa, Asia, Oceania, Neotropics, North America. The Europe Ramsar region comprises the EEA 31 countries plus another 16 countries, including the Russian Federation, Ukraine and Belarus.

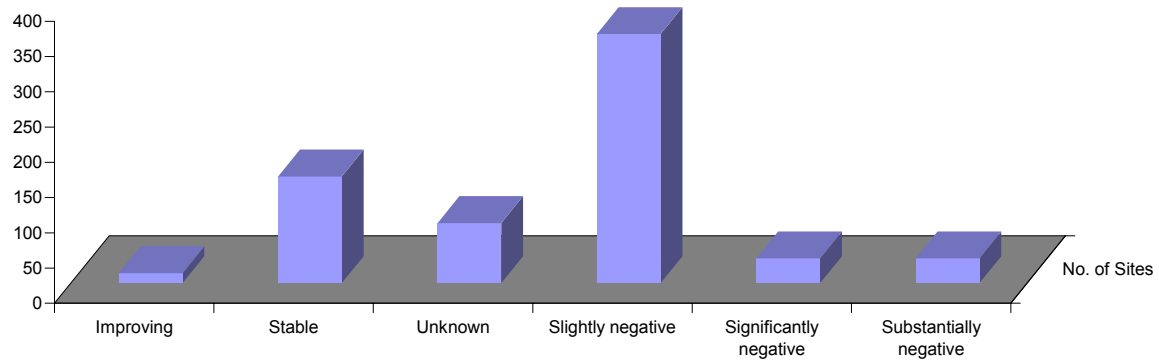
While this briefing is not intended to discuss wetland classification as such, this is a set of tools to assist Contracting Parties to adequately describe their wetlands and their distribution within biogeographical regions of Europe. Classification systems are fully reviewed in the 2nd edition of the **Ramsar Wise Use Handbook 10** on Inventory, but as can already be seen from the above discussion, where groups of countries adopt a single scheme, it can form the framework within which biodiversity indicators are applied.

From an inventory perspective, the increasing importance of the need to assess the entire territory of a country to designate a comprehensive wetland site network, therefore demands a structured hierarchical approach, rather than the more traditional "directory"-based listing of sites. Coupled to an effective whole country approach, the choice of habitat classification system in turn greatly influences the choice of indicators used to assess wetland health. Biodiversity indicators also have to be chosen, and closely related to the purpose of site designation. In the case of Ramsar Sites, the criteria used to designate a Site should be the basis for selecting indicators relevant to monitoring the special features important for designation.

Current drivers, pressures and an outline of ecological status of European wetlands

The main drivers of changes leading to pressures on habitat and related species biodiversity are agricultural measures, including drainage subsidies, general development, including infrastructure, poorly regulated hunting and fishing and weak controls on alien invasive species. At the individual Site level Ramsar Convention Contracting Parties include general status reports at the time of designation and ideally at six year intervals thereafter. However, there is no measure in place for countries to report objectively changes in actual wetland area or ecological status. Provided that these deficiencies are recognized, Figure 1 based on analysis of data at a Site level within the Ramsar Sites Database shows a trend towards declining ecological health, the majority of Sites (62%) are reported as having negative to very negative changes, while a small minority (2%) record improvements in ecological quality.

Figure 1. Ecological Change status of Ramsar Sites within the EEA member countries (source: Ramsar Sites Database, September 2004)



To overcome the difficulty that much of this data reflects only the status of wetlands several years in the past, Wetlands International also relies on additional contextual information. For example, the Pan European Review of Wetland Inventory Information (Nivet, C. and S. Frazier, 2002,

2004), concluded that only 16 countries have adequate national wetland inventory information available. These are the Scandinavian countries (Denmark, Finland, Norway and Sweden), Baltic States (Estonia and Lithuania), Western European countries (Belgium, France, Greece, Spain, Switzerland and the United Kingdom) and Central European countries (Bulgaria, Czech Republic, Slovakia and Slovenia). The report on wetland loss by Jones, T.A. and Hughes, J.M.R. (1993), sets a baseline for loss estimates; some updated loss estimates are available for selected European countries in Nivet and Frazier (2002, 2004). Overall for countries which are members of the European Environment Agency (EEA) a further 10-15% loss in area may have occurred since 1993 (Wetlands International estimate partly based on National Reports to the Ramsar Convention 1999 and 2002).

Wetlands International has produced a report for the EEA through the European Topic Centre for Nature Protection and Biodiversity, to examine status and trends for Ramsar Sites and other wetlands within EEA countries. The report responds to the difficulties in obtaining up to date information about wetland health and species biodiversity status, and the key drivers involved. Wetlands International, cooperating with the Ramsar Secretariat (which conducted a MedWet-based survey), conducted in 2004 a questionnaire-based survey of all National Administrative Authorities and other respondents within the EEA area. The results include feedback obtained on 21 drivers. Of the 31 EEA-related countries, 18 responded at national or at least at sub-national level. The feedback provided is quite complex in scale and character, and it is inadvisable to take an "average" of wetland health and biodiversity status. However, there were 13 non-responding countries that represent 40% by area of the total Ramsar Sites within the EEA countries region

In general, the present ecological status reported is good/declining, however, the significant exceptions are for Greece (inland), Iceland, Italy (Tuscany) and Romania (Danube Delta) where good and improving health is noted, while in Bulgaria wetland status is poor and declining. The net change in health reported since 1993 (or 1991 for MedWet area questionnaires) is good/no change, with the significant exceptions being Bulgaria, Cyprus, France (inland: Languedoc Roussillon), Portugal, and Turkey reporting change as poor/declining.

The biodiversity status of wetlands was mostly reported to be the same as the ecological health, although according to case studies cited by the country authorities within their responses, there are specific concerns about many IUCN red listed species and Birds Directive Annex 1 species, due to continuing development pressures. The survey appears to indicate that since at least 1993, the overall change in wetland ecological (and biodiversity status) is of slight improvement and therefore the Site-based analysis based on earlier data shown in Figure 1 may be over-pessimistic.

The pressures (threats) to wetlands within Europe are complex and continue to increase, however, the intent of national wetland policy is to promote inter-departmental governmental actions that reduce threats to wetland and its related biodiversity. The principal threat to biodiversity is loss of wetland area (through development), drainage and pollution. These threats comprise several contributing factors recorded by Contracting Parties within National Reports to the Ramsar Convention or in individual Ramsar Site Information Sheets. Within sites, the most significant impacts recorded are due to physical loss or modification of habitat, impacts due to agriculture or various forms of pollution, the last being the principal threat within the surrounding catchments.

Amongst key pressures reported in the 2004 survey, implementation of conservation planning and involvement of local communities was rated very significantly positive, while Ramsar Site designation was almost always cited as leading to better maintenance of ecological character,

however, SPA designation was thought to be a stronger mechanism within some EU country reports. Consistently strongly negative drivers were urban development, agricultural runoff, water abstraction, drainage, damming and alien invasive species. Excessive fishing and hunting was also reported.

Amongst interesting results obtained, tourism was considered to be either a strongly positive or strongly negative driver, and is therefore a tool of some power. Intensification of agriculture through CAP incentives has in the past been considered to be one of the most important drivers of change regarding wetlands and biodiversity. However, surprisingly, agricultural intensity in many countries was mostly reported to be in decline.

In summary, since about 1993, the most significant changes in drivers or pressures related to Ramsar Sites as reported by national or local focal points are:

- Increased implementation of conservation management measures
- Increasing Local Community awareness (related to the wetland)
- Increased effect of cultural values and traditions
- Stable or decreasing agricultural intensity
- Increasing agricultural run-off of fertiliser/nutrients
- Tourism, reported as significantly positive or negative
- Urban development
- Alien invasive species
- Water abstraction, drainage or damming

Data provided by Contracting Parties to the Ramsar Convention includes the "baseline" statement about the Site at the time of designation, and six yearly updates to the Site Information Sheet, together with national level reporting for each triennial meeting of the Parties. However, the availability of indicators to monitor Ramsar Site ecosystem health and biodiversity status is wholly inadequate, due to the lack of guidance provided to Contracting Parties to establish baseline assessment and subsequent monitoring. Too much of the information available for wetlands is subjective or uncalibrated, with virtual absence of biodiversity status assessment that can be compared across Sites. Waterbird population trend data collected through the International Waterbird Census remains the single comprehensive annual biodiversity assessment across many European country wetlands, which, within the EEA countries over the last ten years appears to indicate that waterbird populations are mostly stable, with some evidence that Ramsar Sites act to stabilize the populations concerned.

The broad spread of drivers reported on the 2004 survey indicates the need for a more holistic approach to inventory, assessment and monitoring and this why Wetlands International now proposes to establish a "wetland index" to report on the combined effect of drivers and to enable existing field based volunteers to increase their contribution to monitoring of ecological health. Such an assessment must be based on the outcomes of the work being reviewed under STRP's Working Group on Wetland Inventory and Assessment (Task 1.6 (i) and (ii)), and based on the CBD review paper (CBD/SBSTTA/8/INF/5).

Key points for discussion arising out of this briefing therefore include:

- How to select wetlands of international importance within a whole country inventory
- Indicators and assessment, role of the Ramsar Sites Database
- EU Directives and the Ramsar Convention

- Extending recognition and assessment of wetland cultural heritage
- Common reporting issues for the CBD, Ramsar and EU.

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