

The Ramsar Convention on Wetlands

Agenda 21 and the Ramsar Convention on Wetlands

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Submission to the UN Department of Economic and Social Affairs (DESA) for the review and assessment of the implementation of Agenda 21 and the Programme for the Further Implementation of Agenda 21

Specific thematic review clusters considered:

- Decision making structures and institutions for sustainable development
- Role of Major Groups
- Education, public awareness and training
- Oceans and seas, living marine resources and coastal zone management
- Freshwater resources
- Biodiversity conservation and sustainable use
- The UNCED-related and other Conventions

by the Bureau of the Convention on Wetlands (Ramsar, Iran, 1971)

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Foreword

1. As the international community moves toward the second World Summit on Sustainable Development, to be held in South Africa in 2002, it is timely to review the achievements of those international instruments which are contributing to the overall implementation of Agenda 21.

2. The Bureau (secretariat) of the Ramsar Convention on Wetlands has prepared this 'report card' on the activities of this treaty that now has sustainable development as the **centerpiece of its mandate**, for the information of those who will participate in the preparation of the World Summit at national and international levels. The intention is to ensure that, unlike in Rio in 1992, the Ramsar Convention gains full recognition of the important role it is playing, and the roles it plans to and could play, in pursuing sustainable development.

The Mission of the Convention has been defined as "the conservation and wise use of wetlands by national action and international cooperation as a means to achieving sustainable development throughout the world" (the Convention's Strategic Plan 1997-2002).

3. The report has been structured broadly around the advice provided by the Commission on Sustainable Development and the proposed 'thematic reviews' which will be prepared to highlight accomplishments and identify gaps and deficiencies in the approaches being taken to implement Agenda 21.

4. To assist those crafting such reviews, wherever possible quantitative measures have been included to give some sense of progress in addressing priority actions.

5. The report draws upon Ramsar's 30 years of experience in advancing its **Wise Use principle** and demonstrates that the Convention on Wetlands has come of age as an international instrument, and has much to contribute across almost all chapters of Agenda 21.

The Conference of the Contracting Parties (1987) has thus defined "wise use" in the context of the Convention: "The wise use of wetlands is their sustainable utilization for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem." At the same time,

6. The report also recommends some priority 'course corrections' of particular interest to the Ramsar Convention for the consideration of the World Summit. These are based on an assessment of the policy and

programmatic gaps and weaknesses which are apparent in the implementation of the Ramsar Convention.

7. It is hoped that the assembled world leaders in Johannesburg in 2002 will:

- (a) be aware of the importance of wetlands to the long-term sustainability of the planet's ecosystem and for people's well being;
- (b) recognize that the Ramsar Convention, and in particular its List of Wetlands of International Importance, is a useful instrument for pursuing a refreshed and refocused Agenda 21 as a result of the Rio+10 Conference; and
- (c) adopt the recommended 'course corrections' contained herein as part of the larger programme of work to be endorsed by the World Summit.

"sustainable utilization" of a wetland was defined as: "Human use of a wetland so that it may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations." "Natural properties of the ecosystem" were defined as: "Those physical, chemical and biological components, such as soil, water, plants, animals and nutrients, and the interactions between them."

Executive summary

8. As part of the preparations for the 2002 World Summit on Sustainable Development, the Bureau (secretariat) of the Convention on Wetlands - a convention that has sustainable development as the centerpiece of its mandate - has prepared this 'report card' on its activities for the information of those who will be involved in the preparation of the Summit at national and international levels.

9. The **Convention on Wetlands of International Importance especially as Waterfowl Habitat** was signed in Ramsar, Iran, on 2 February 1971 and came into force in 1975. It is now commonly referred to as the Convention on Wetlands (Ramsar, Iran, 1971) or simply as the Ramsar Convention.

10. Despite being a pioneer of the concept of sustainable development with its own concept of 'wise use' (see definition in the footnote of the Foreword), the Ramsar Convention failed to gain recognition as a serious 'tool' for pursuing sustainable development at the Rio Conference in 1992. Since then Ramsar has evolved, matured, and come of age – from 70 Parties at that time, it now has 123 Parties and expects to reach 150 by its 8th Conference of Parties in 2002. This maturing of the Ramsar Convention has run in parallel with an improved understanding at the global level of just how vital wetlands are for sustaining human life and how important they are to the planet's freshwater supply 'infrastructure'.

11. Today, the Ramsar Convention's best-known feature, the List of Wetlands of International Importance, has reached 1050 sites with a surface area of nearly 80 million hectares, and has the target of 2000 sites by the time of Ramsar's 9th Conference of Parties in 2005. Ramsar's Wise Use 'toolkit' has been widely distributed and is being expanded. The Convention is now being used as a mechanism to promote international cooperation over shared wetlands, water resources, and migratory species. Ramsar today has much to offer to the pursuit of the ideals of Agenda 21, which the Rio+10 Conference will review.

12. This report is structured broadly around the 'thematic reviews' being prepared to help inform the deliberations in Johannesburg. It highlights the many contributions the Ramsar Convention has made to the implementation of Agenda 21, ranging across nearly 20 of its chapters. The report also recommends some priority 'course corrections' (see below) for the consideration by the 2002 World Summit. These are based on Ramsar's thirty years of experience of promoting sustainable use of wetland resources.

13. It is hoped that from the information contained herein, the assembled world leaders in Johannesburg in 2002 will:

- (a) be aware of the importance of wetlands to the long-term sustainability of the planet's ecosystem and for people's well being;
- (b) recognize that the Ramsar Convention, and in particular its List of Wetlands of International Importance, is an useful instrument for pursuing a refreshed and refocused Agenda 21; and
- (c) will adopt the recommended 'course corrections' contained herein, and summarized below, as part of the larger programme of work to be endorsed by the World Summit on Sustainable Development.

Recommended 'course corrections'

14. The following are some recommendations for 'course corrections'. They are limited to the perspectives of the Ramsar Convention on Wetlands and do not pretend to embrace the full spectrum of 'course corrections' that the World Summit should consider.

14.1 A continuing need for policy and legal reforms

While some progress is evident, there remains a need for national policy and legal instruments to be aligned with the expectations of Agenda 21 in many countries. There now exist an increasing number of exemplars, or models, in this regard and the World Summit should be urged to find ways to be more effective in making these available to other States.

14.2 Fundamental reforms to governance structures needed

The evidence suggests that in order to advance toward sustainable development Parties, if they have not already done so, need to consider some fundamental changes to their governance structures, such as:

- i) the establishment within government of a primary driver of sustainable development, one that can accelerate the integration of social, economic and environmental factors. Such a driver could be a task force, high level council, or Ministry established by and reporting to the President or Prime Minister;
- ii) the decentralization or delegation of decision-making to the most appropriate management level. The 'ecosystem approach' developed under the Convention on Biological Diversity advocates this through its Principle 2 and suggests that decentralized systems may lead to greater efficiency, effectiveness and equity. The World Summit should be urged to support this goal and seek the resources to accelerate the introduction of participatory management regimes in the most 'stressed' river basins initially, and subsequently in all others; and
- iii) the application of the ecosystem approach for the decentralization of big global funds and setting up of more sustainable financial mechanisms at the field level, i.e. site-specific trust funds, theme-specific funds, etc.

14.3 Reforms needed in the way the Major Groups are consulted

The point has not yet been reached at which all stakeholder interests are routinely represented around the table when matters of sustainable development and the use of natural resource are being discussed. Countries should be urged to review their consultative processes to ensure they are permitting those representing the Major Groups to have their say in national and local policy setting and planning for natural resource management.

14.4 The poor quality of natural resource information is impeding Agenda 21

Unless countries have at their disposal high quality data upon which to base integrated planning, much of the product has to be based on guesswork and speculation. While current initiatives such as the Millenium Ecosystem Assessment and the Global International Waters Assessment may help in this regard, the challenge will remain of getting this information into the hands of the people who need it, and ensuring that they have the capacity to interpret and apply such information.

14.5 Education remains a priority - and a weakness

There remains an urgent need for the World Summit to encourage a range of actions in the education areas. Little progress has been made in introducing the principles of sustainable development into formal and informal education streams and this warrants very high priority. As indicated in point 14.1 above, part of the solution lies in improved transfer of experiences and information. A failure to engage the education sector in Agenda 21 would seem to be limiting progress in this area, and steps need to be taken both nationally and internationally to address this problem.

14.6 New approach to training and capacity building needed

The delivery of training in many cases does not appear to be based on a sound understanding of needs or existing competencies. The World Summit should be urged to develop a major Agenda 21 training initiative - a 'one-stop-shop' for training in sustainable development - which will bring together the necessary expertise and resources to see these shortcomings addressed.

14.7 The Ramsar Convention's List of Wetlands of International Importance as a tool of sustainable development and biodiversity conservation

The World Summit should be urged to recognize the importance of States protecting and utilizing their freshwater and coastal wetland resources wisely, using the vehicle of the List of Wetlands of International Importance. Countries are encouraged to use their sovereign right of designating key wetland sites as Wetlands of International Importance as a 'tool' to assist sustainable development and biodiversity conservation aspirations. As advocated by the Ramsar Convention, these wetlands can become part of a global network of 'demonstration' sites for sustainable development, while at the same time providing a focus for national actions to implement Agenda 21 in very tangible and demonstrable ways. To date 123 Parties to the Ramsar Convention have designated 1050 Wetlands of International Importance. These can be found spread across inland water, marine and coastal, dryland, mountain and other ecosystems. In so doing, these Parties have made a major contribution to their national obligations under CBD as part of their quest for sustainable development.

14.8 Urgent action needed to protect global fisheries

Allied to 14.7 above, States should be urged to use the mechanism of designating sites to the List of Wetlands of International Importance to establish national networks for

protecting vital fish habitats. Fish resources are becoming more and more stressed. By taking the proactive step now of protecting vital fish nursery areas as Ramsar sites, countries can ensure a level of food security and of viable commercial fisheries.

14.9 Ecosystem restoration a priority in order to regain services and benefits

While it remains more cost-effective to conserve the natural ecosystems, the technology presently exists to restore many areas now degraded or converted to other less productive uses. The Ramsar Convention advocates the restoration and rehabilitation of wetlands, especially in the cases where countries have specific water management objectives (improved water quality, water storage, flood mitigation, etc.) in mind. The World Summit should be urged to take the proactive step of agreeing to increase efforts in ecosystem restoration.

14.10 Actions needed to see the UNCED-related and other conventions working as a closely coordinated 'team' promoting sustainable development

Major weaknesses continue to be identified in the manner by which the suite of conventions operating with an Agenda 21 mandate (either directly or indirectly) are coordinating their work. Without a strong effort to achieve a more collaborative and integrated implementation of the UNCED-related and other relevant conventions, it is difficult to see national administrations, and even more so local stakeholders, being encouraged to think more holistically about the management of natural resources. The following actions are recommended to address these concerns.

i) As a mechanism to engage the Major Groups more effectively, document and demonstrate the fundamental science behind the global ecosystem, how it is being broken down, and why. Within this context, articulate the specific role, or roles, of each convention, how they link – in an ecosystem sense – and how they link operationally. (The following point (ii) considers some of the operational links in more detail.) As part of the same initiative, the World Summit should be urged to support the concept of 'demonstration' sites to show how the various international conventions can be implemented in an integrated way – to deliver sustainable development. There remains a healthy skepticism among local communities that these high-level instruments can be manifested in tangible outcomes for them. 'Demonstration' sites that show how this can be done would provide an enormous boost for the aspirations of Agenda 21.

ii) Despite more recent efforts, the general lack of coordination between the multilateral conventions in terms of policy development, science and technology, information management and administration is a major concern. Ramsar's Joint Work Plan with CBD is considered the model for advancing inter-convention collaboration.

The process of creating a more integrated working 'team' of conventions requires acceleration, and the World Summit could, and should, be the catalyst for this. The following could be significant first steps to achieving these more efficient and effective working arrangements among conventions:

a) taking the idea contained in Chapter 38 of Agenda 21 regarding a high-level inter-agency coordination mechanism (paragraphs 38.16-18), establish an international coordinating and information-sharing mechanism between the UNCED-related and other conventions, which can assist in developing

common programmes of work, harmonizing and cross-linking agendas, improving the scheduling of conferences of the Parties and meetings of subsidiary scientific meetings, etc.;

b) establish a 'chairs of subsidiary scientific bodies working group' for the UNCED-related and other conventions in order to encourage cross-fertilization of ideas and the sharing of information and expertise;

c) continue to move toward seamless and harmonized information management systems for the UNCED-related and other conventions, as advocated by the 1999 World Conservation Monitoring Centre's feasibility report for the biodiversity-related conventions (see below);

d) promote the further development of bilateral, trilateral or multilateral Memoranda of Cooperation, with associated Joint Work Plans, between conventions, and (as recommended above) include as part of these the 'demonstration' projects showing integrated delivery of UNCED-related and other conventions.

iii) The burden imposed by the independent reporting requirements under each convention is also a major issue, especially for developing countries, and warrants attention by the World Summit. The WCMC Report on harmonizing information management among the biodiversity-related conventions referred to above proposes measures to streamline national reporting, and these require urgent attention.

iv) The problem of ensuring that all Parties can participate fully in the workings and deliberations of the international conventions is not a new issue. Regrettably no solution has yet been found to this problem, which continues to see developing countries disadvantaged. Some of the actions recommended above, such as better coordination of meeting schedules, more integrated work programmes, simplified and streamlined national reporting, etc., would serve to reduce the burden on developing countries and for this reason deserve high priority. Experience has also shown that participation by developing countries in Conferences of the Parties and subsidiary scientific bodies is generally constrained by lack of resources. If equity is to be ensured in these important international discussions, then this matter needs to be addressed.

14.11 The funding mechanisms in place for the implementation of the UNCED-related and other conventions need review

While the Global Environment Facility and some national funds such as the Fond Français pour l'Environnement Mondiale (FFEM) are proving to be useful instruments for the implementation of two of the UNCED-related Conventions, the World Summit should be urged:

i) to review these mechanisms to make them even more effective, more easily accessible to countries in need, and more integrated with other funding mechanisms for sustainable development; and

ii) to identify tangible sources of additional funding to allow a more effective implementation of all conventions by developing countries and

countries in transition.

AGENDA 21 AND THE RAMSAR CONVENTION ON WETLANDS

Section 1. Introduction

15. On 2 February 1971, in the city of Ramsar, Iran, the representatives of 18 nations signed the **Convention on Wetlands of International Importance especially as Waterfowl Habitat**, commonly referred to today as the Convention on Wetlands (Ramsar, Iran, 1971) or simply the Ramsar Convention. Today the Convention has 123 Contracting parties.

16. Originally focused on wetlands as waterbird habitats, the Convention has evolved over the years to become a champion of the conservation and sustainable use of wetlands taking into account the full spectrum of wetland values and functions, both for biodiversity and for human well-being. Today, the Ramsar Convention continues to grow and mature and is now an important mechanism for promoting sustainable development.

17. Ramsar's text, simple when compared with that of more recent international environment conventions, enshrined the three 'pillars' of the treaty. These are:

a) the List of Wetlands of International Importance, with which the Ramsar Convention is most commonly associated. There are now 1050 designated sites in 123 Parties with an area of nearly 80 million hectares – approximately equal to the area of Namibia, Pakistan or Turkey;

b) the "wise use" – or sustainable use (see definition of "wise use" in footnote 2 of the Foreword) – of all wetlands in the territory of each Contracting Party; and

c) international cooperation under the Convention, especially in situations where neighbouring States share wetlands or water resources.

18. Also significant is the broad definition of "wetland" adopted by the Convention, as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres".

19. This definition, while possibly a product of international compromise, seems more likely to have been a deliberate decision which appreciated the cornerstone role of wetlands in the planet's hydrological 'infrastructure', and recognized that the water cycle is a continuum between fresh and salted water. As a consequence Ramsar's mandate extends from the seagrass and coral ecosystems of the near-shore environments, through estuaries and flooded swamp forests, along rivers and their floodplains to the upper catchments. It includes everything from peat bogs to subterranean karst systems, and even human-made wetlands. In short, Ramsar's brief includes the habitats favoured by the majority of the human species.

20. Nevertheless, the Ramsar Convention gained little attention at UNCED and, in consequence, receives but passing mention in Agenda 21. However, this must be put in perspective. In June of 1992 there were just 60 Parties to the Ramsar Convention, the List of Wetlands of International Importance included only 561 sites, and Ramsar had really only just begun to articulate fully and provide guidance on its 'wise use' principle.

21. Today, there are 123 Contracting Parties and the prospects are that within the next five years this will increase by a further 40-50 countries. This increasing interest in the Convention has paralleled the improved understanding of the functions, services and benefits provided by wetlands, some of which are summarized in [Information box 1](#) (from Ramsar's information pack on "Wetland Values and Functions") at the end of this section.

22. In this same period, the Ramsar Convention has become a significant voice in promoting sustainable use of wetland resources, and has developed an impressive menu of tools to assist Parties in this regard. One of the Convention's major achievements is its Wise Use 'toolkit', released in January 2000 (see [Information box 2](#)). This nine-volume set now provides the essential information for Parties on implementation Ramsar's three pillars – the List of Wetlands of International Importance, wise use, and international cooperation.

23. The Parties to Ramsar take great pride in the fact that it is a Convention which has earned a reputation for being very proactive, hands-on, technically sound and focused on actions. As this submission tries to demonstrate, Ramsar today is a vibrant and effective 'tool' for contributing to sustainable development.

24. The Ramsar Convention is more than an intergovernmental treaty, it is a movement which is growing rapidly around the globe. The Convention owes its existence to strong NGO and scientific roots, and today these continue to serve it well as it moves ahead on a range of fronts, providing mechanisms and tools to assist Parties, regional bodies, national authorities, and local people with the framework and support to take action.

25. Expert evaluations indicate that, at the global level, about 50% of wetlands have been converted to other uses, and in the process humanity has been denied their innumerable services and benefits. The understanding is now there that wetland destruction must stop in the interest of all humankind. The technology also exists to reinstate many of these former wetland areas. The 2002 World Summit should establish that the continuing destruction of the natural assets that wetlands represent is directly counter to the objectives of Agenda 21.

Information box 1 – Wetland values and functions

Wetland ecosystems are part of our natural wealth. A recent assessment of the dollar value of natural ecosystems estimated them at US\$ 33 trillion. The study estimated the global value of wetland ecosystems At an amazing US\$ 14.9 trillion, 45% of the total. This reflects the many functions of wetlands as follows:

FLOOD CONTROL
 GROUNDWATER REPLENISHMENT
 SHORELINE STABILISATION & STORM PROTECTION
 SEDIMENT & NUTRIENT RETENTION AND EXPORT
 CLIMATE CHANGE MITIGATION
 WATER PURIFICATION
 RESERVOIRS OF BIODIVERSITY
 WETLAND PRODUCTS
 RECREATION/ TOURISM
 CULTURAL VALUE

It is no accident that river valleys and their floodplains have been the focus of human civilisations for over 6,000 years – and that many other wetland systems have been equally critical to the development and survival of human communities. This simply reflects the key role that water and wetlands have played throughout human life. Our

advancing technological skills may seem to have supplanted the role of Nature, but recent environmental catastrophes – floods, landslides, storms, many with their roots in unsustainable land use practices – suggest otherwise. The reality is that we still depend on our natural ecosystems to sustain us.

The multiple roles of wetland ecosystems and their value to humanity have been increasingly understood and documented in recent years. This has led to massive expenditures to restore lost or degraded hydrological and biological functions of wetlands. But it's not enough – the race is on to improve practices on a significant global scale as the world's leaders try to cope with the accelerating water crisis and the effects of climate change. And this at a time when the world's population is set to increase by 70 million every year for the next 20 years.

Global freshwater consumption rose sixfold between 1900 and 1995 – more than double the rate of population growth. One third of the world's population today lives in countries already experiencing moderate to high water stress. By 2025, two out of every three people on Earth may well face life in water stressed conditions.

The ability of wetlands to adapt to changing conditions, and to accelerating rates of change, will be crucial to communities and wildlife everywhere as the full impact of climate change on our ecosystem lifelines is felt. Small wonder that there is worldwide focus on wetlands and their services to us.

Wetlands are hugely diverse. But whether they are ponds, marshes, coral reefs, peatlands, lakes or mangroves, they all share one fundamental feature: the complex interaction of their basic components - soil, water, animals and plants - that fulfils many functions and provides many products that have sustained humans over the centuries. Of course not every wetland performs all these functions - but most wetlands perform many of them.

Information box 2. The Ramsar Convention ‘toolkit’ for the conservation and wise use of wetlands

The Ramsar Convention ‘toolkit’ for the conservation and wise use of wetlands including Guidelines adopted by the 7th Conference of the Parties, San José, Costa Rica, 1999

Wise use of wetlands	Wetlands of International Importance - designation and management	International cooperation
Handbook 1	Handbook 7	Handbook 9
Wise use of wetlands	Strategic framework and guidelines for the future development of the List of Wetlands of International Importance	Guidelines for international cooperation under the Ramsar Convention on Wetlands – which covers:

<p>Handbook 2</p> <p>Developing and implementing National Wetland Policies</p>	<p>Handbook 8</p> <p>Frameworks for managing Wetlands of International Importance and other wetlands - including:</p> <p>i. Guidelines on management planning for Ramsar sites and other wetlands,</p>	<p>i. Management of shared wetlands and river basins;</p> <p>ii. Management of shared wetland-dependent species;</p> <p>iii. Partnerships between Conventions and agencies</p>
<p>Handbook 3</p> <p>Reviewing laws and institutions to promote the conservation and wise use of wetlands</p>	<p>ii. Guidelines for describing and maintaining the ecological character of Listed sites</p>	<p>iv. Sharing knowledge and expertise;</p> <p>v. Development assistance;</p>
<p>Handbook 4</p> <p>Integrating wetlands conservation and wise use into river basin management</p>	<p>iii. Framework for designing a wetland monitoring programme</p>	<p>vi. Foreign investment and business sector codes of conduct</p>
<p>Handbook 5</p> <p>Establishing and strengthening local communities' and indigenous people's participation in the management of wetlands</p>	<p>iv. Guidelines for operation of the Montreux Record (of sites where changes in ecological character have occurred, are occurring, or likely to occur)</p>	
<p>Handbook 6</p> <p>Promoting the conservation and wise use of wetlands through communication, education and public awareness - The Outreach Programme of the Convention on Wetlands</p>	<p>v. Wetland Risk Assessment Framework</p>	

Section 2. Decision-making structures and institutions for sustainable development

2.1 Introduction

26. Chapter 8 of Agenda 21 contains four programme areas which are seen as pivotal to achieving decision-making which fully integrates economic, social and environmental factors at the policy, planning and management levels. These four programme areas cover, in broad terms: a) policy and institutional frameworks; b) laws; c) economic instruments and incentives; and d) integrated environmental and economic accounting.

27. The Ramsar Convention, through its Wise Use principle and its guidelines, advocates these same approaches to its Parties; in particular, the past decade has seen these instruments considered more and more intensively as the pressure on wetland resources has continued to mount.

28. In the following paragraphs, a brief summary of Ramsar's contributions to advancing the sustainable use of wetland resources through these various programmes areas is provided.

2.2 Integrating environment and development at the policy, planning and management levels

National Wetland Policies or Strategies

29. In its efforts to promote more integrated decision-making approaches, the Ramsar Convention has focused strongly on the development of national wetland policies. Ideally these are developed through broad consultation with the Major Groups and across government, to ensure ownership, balance and full support. Table 1 shows the progress that has been made with the development of national wetland policies since 1987, the time of Ramsar's 3rd Conference of Parties. It also shows the progress with the development of wetland strategies or action plans, which in some cases have a lesser status in government.

30. While progress with the development of such policy and strategy instruments was slow initially, it has accelerated more recently, and it is hoped this will be further assisted by the Ramsar *Guidelines for developing and implementing National Wetland Policies* adopted by Resolution VII.6 of the 7th Conference of Parties (Costa Rica, May 1999). These Guidelines now form Handbook 2 of the Ramsar Wise Use 'toolkit' launched in January 2000.

31. Uganda's efforts in developing a National Wetland Policy and following this up with legislative reforms make it a leader in Africa – see [Information box 3](#) at the end of this section.

Table 1: Status of National Wetland Policies (NWPs) and National Wetland Strategies (NWSs) or Action Plans (NWAPs)

	1987 Regina COP3	1990 Montreux COP4	1993 Kushiro COP5	1996 Brisbane COP6	1999 San José COP7
Status of National Wetland Policies					
(a) Adopted	0	0	3	6	12
(b) In Draft Form	0	1	6	8	6
(c) Development Under Consideration or Proposed	n.d.	1	6	13	26
(d) No Action	17	43	36	65	70

Yet Reported					
Status of National Wetland Strategies/ National Wetland Action Plans					
(a) Adopted	4	9	9	35	50
(b) In Draft Form	1	1	4	12	12
(c) Development Under Consideration or Proposed	n.d.	n.d.	5	8	39
(d) No Action Yet Reported	12	35	33	36	13
Number of National Reports Tabled	17 of 35	45 of 60	51 of 76	92 of 92	107 of 114

Sources: Ramsar Bureau (1987, 1990, 1993, 1998a, 1998c); Rubec (1996); Smart (1993). n.d = no data.

National Ramsar/Wetland Committees

32. In conjunction with policy or strategy development, Ramsar Parties have been urged by successive Conferences of Parties to establish national Ramsar or Wetland Committees to provide advice and direct input to policy and institutional reforms being considered by government. At the time of Ramsar's 7th Conference of Parties (1999), 40 countries' governments confirmed in their National Reports that such bodies existed and included non-government stakeholder representation. In 11 Parties there are reported to be government-only national Ramsar or Wetland Committees.

Integration with related national policies and strategies

33. The Ramsar Convention also encourages Parties to ensure that their Ramsar obligations are integrated wherever possible into a range of other policy instruments, such as national strategies for sustainable development, National Biodiversity Action Plans, national freshwater management policies, and coastal zone management approaches. The National Reports for the 7th Conference of Parties (1999) indicated that 74 Parties have such mechanisms in place or being introduced. To facilitate the latter, Ramsar's COP7 adopted guidelines relating to the integration of wetlands into river basin management (see section 6.2), and the Convention is presently developing guidelines related to the integrated management of wetlands in the coastal zone (see section 5.2).

Wetland restoration and rehabilitation

34. Another major area of activity by Parties to the Ramsar Convention is that of wetland restoration and rehabilitation. At the 7th Conference of Parties, 76 of 100 Parties (76%) reported that wetland areas were being restored or repaired in their countries. With the recognition of the vital ecosystem services provided by wetlands, the tide is now turning in many countries and the new agenda is to reinstate ("reclaim") areas that were once wetlands or to rehabilitate degraded areas – this is being done as part of ecosystem or river basin-level approaches to water management or biodiversity conservation.

35. [Information box 4](#) at the end of this section indicates more on this important programme area of

the Ramsar Convention which recognizes that the technology now exists to return former wetland areas back to near-natural state, and thus once again benefit in terms of their functions and services.

2.3 Providing an effective legal and regulatory framework

36. Agenda 21 identifies a coherent legal and regulatory framework as an important "instrument for transforming environment and development policies into action" (paragraph 8.13). Under this programme area, the stated overall objective is "to promote, in the light of country-specific conditions, the integration of environment and development policies through appropriate legal and regulatory policies, instruments and enforcement mechanisms at the national, state, provincial and local level." (Paragraph 8.16).

37. The Ramsar Convention, in its Strategic Plan 1997-2002, recognizes the same priority in this area with Operational Objective 2.1 as follows: "To review and, if necessary amend national or supra-national legislation, institutions and practices in all Contracting Parties, to ensure that the Wise Use Guidelines are applied." At the time of Ramsar's COP7 (1999), 45 Parties reported that they had undertaken such reviews – a tangible indication that this action was gaining attention. Of these, 39 stated that legislative amendments had resulted.

38. The National Reports from some of these Parties reveal significant action being taken as follow-up to such reviews with legislative and institutional amendments to promote the integration of wetland conservation with sustainable development – as sought by the Wise Use Guidelines. Some notable illustrations of action in this area are provided by [Costa Rica](#) and [Australia](#), and these are described in brief in the accompanying case study boxes.

39. As a mechanism to escalate the effort in legal reform, the Ramsar Convention adopted at its COP7 *Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands* (Resolution VII.7). These Guidelines are based on a number of documented case studies and the more extensive publication *Wetlands, Water and the Law* (IUCN–the World Conservation Union, 1999) – as described in more detail in the information box.

40. The Guidelines also form Handbook 3 of the Ramsar Wise Use "toolkit" published in January 2000 (see section 1). By the time of its COP8 in 2002, the Ramsar Convention has set the target of achieving legislative reviews in 100 of its expected 150 Parties.

41. While the Parties to the Ramsar Convention have made significant progress in addressing the shortcomings of their legal frameworks over the past decade from the wetland perspective, it is clear that in only a handful of countries can it be said that this effort has met the expectations of Agenda 21 under this programme area.

42. Weaknesses are in seeing such reforms operating at all levels – from national to local, in seeing sufficient capacity in place to support legal reforms and the subsequent application or enforcement of these, in the provision of legal reference or support services, and in the integration of institutional arrangements to match and assist the application of new legal frameworks. These remain as major challenges to be taken up through Rio+10.

2.4 Making effective use of economic instruments and market and other incentives

43. The promotion of economic instruments and other incentives has been recognized as a priority for the Ramsar Convention at its 7th Conference of Parties in 1999, where Resolution VII.15 on *Incentive measures to encourage the application of the wise use principles* was adopted. Consistent with Agenda 21, this Resolution urges Parties to "review their existing, or evolving, policy, legal and institutional frameworks to identify and promote those measures which encourage conservation and wise use of wetlands and to identify and remove measures which discourage conservation and wise

use" (Paragraph 11).

44. The same Resolution instructs the Convention's Scientific and Technical Review Panel (STRP - see section 3.5) to work in partnership with relevant bodies of the Convention on Biological Diversity (CBD) and the Convention on Migratory Species, OECD, the International Association for Impact Assessment, the IUCN and interested Parties, to review existing guidelines and available information on incentive measures in order to prepare an Internet-based resource kit with a catalogue of incentives and case studies. This Internet-based resource has been established and can be found at <http://economics.iucn.org/policy/incentives.htm>.

45. For Ramsar's COP8 in November 2002, the Convention's STRP is expected to report on the progress of the design, implementation, monitoring and assessment of incentive measures, and the removal of perverse incentives working against conservation and wise use. It is notable that in undertaking this work for the Convention, the STRP is expected to work closely with its counterpart body under the CBD, the SBSTTA, as an element of the Joint Work Plan in place between the two Conventions (see section 8.3)

2.5 Establishing systems for integrated environmental and economic accounting

46. The fundamental goal sought by Agenda 21 in this area is to see systems of integrated environmental and economic accounting (IEEA) established in all members States (Paragraph 8.42).

47. For its part, the Ramsar Convention has helped to advance this goal primarily through efforts to have the true values of wetlands, in terms of the goods and services they provide, fully integrated into impact assessment practices and more broadly into national accounting systems.

Economic valuations of wetlands

48. In 1997 the Convention (in partnership with the University of York, the Institute of Hydrology, and the IUCN) published *Economic valuation of Wetlands* which has since been reprinted and made available in a range of national languages (see [Information box 7](#) below). This guide for policy makers and planners is designed to assist in introducing some clarity and reality to the real costs associated with wetland loss or degradation.

49. At the time of Ramsar's 7th Conference of Parties, 34 Parties advised in their National Reports that actions had been taken to incorporate economic valuation techniques into natural resource planning and assessment actions. While clearly inadequate, this figure does suggest a growing level of recognition among Parties that 'mainstreaming' the economics of wetlands into natural resource management debates is an important step toward achieving their conservation and wise use.

50. Some examples of where economic valuations are being applied are provided by the National Reports submitted for Ramsar's 7th Conference of Parties. Mexico advises that their Wildlife General Directorate encourages qualitative valuation of wetlands at the local level to be able to demonstrate the benefits of using wetlands, and Venezuela proposes to integrate natural resources into their national accounting system. In Bangladesh, economic valuation of wetlands has been incorporated into the National Water Management Plan, and in India, economic valuation techniques are being applied in the management of three Ramsar sites. In Africa, Uganda has decided to include valuations of each site as part of its wetland inventory programme.

Strategic Environmental Assessment

51. At its COP7 the Ramsar Convention also reviewed impact assessment practices and new directions, and adopted Resolution VII.16 on *The Ramsar Convention and impact assessment: strategic, environmental and social*. The National Reports for the Conference indicated that in 92

Parties actions potentially impacting on wetlands require the preparation of environmental impact assessments.

52. In addition, the Parties recognized the need to move from site/project-based environmental impact assessment to broader strategic assessment, taking into consideration whole of government plans, programmes and policies and social and economic impacts of wetland loss. The Resolution encourages Parties to "ensure that impact assessment procedures seek to identify the true values of wetland ecosystems in terms of the many functions, values and benefits they provide, to allow these environmental, economic and broader social values to be included in decision-making and management processes." (Paragraph 11).

53. The same Resolution instructs the Scientific and Technical Review Panel of the Convention to work in partnership with relevant bodies of the Convention on Biological Diversity and other conventions and experts to review existing guidelines and available information on environmental impact assessment and economic valuation in order to prepare an Internet-based resource kit with a catalogue of incentives and case studies. This Internet-based resource has been established and can be found at <http://economics.iucn.org/policy/incentives.htm>

2.6 Thematic and policy review and recommended ‘course corrections’ (decision-making structures and institutions for sustainable development)

54. The contribution of the Ramsar Convention in this area can be summarized as follows:

- a) Steady growth in the development of National Wetland Policies and Strategies – 12 Policies adopted, 6 being drafted; 50 Strategies adopted, 12 being drafted;
- b) Seventy Parties where wetlands management issues are being integrated into broader sustainable development and biodiversity conservation policy and planning instruments;
- c) Forty Parties with cross-sectoral national Ramsar or wetland consultative committees in place;
- d) Growth in wetland restoration and rehabilitation with at least 76% of Parties supporting such activities;
- e) Adoption of *Guidelines for developing and implementing National Wetland Policies* (Handbook 2 in the Ramsar Wise Use ‘Toolkit’);
- f) Forty-five Parties that have reviewed their legislative frameworks and 39 which have made followup amendments;
- g) Adoption of *Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands* (Handbook 2 in the Ramsar Wise Use ‘Toolkit’);
- h) Thirty-four percent of the Parties that have in some way acted to introduce economic valuation into decision making and planning for natural resource management;
- i) Ninety-two Parties where actions potentially impacting on wetland require the preparation of environmental impact assessments;
- j) Internet resource kits on incentives measures and impact assessment being developed;
- l) Publication of handbook *Economic Valuation of Wetlands*.

55. From the perspective of the Ramsar Convention, the following are the main challenges to be considered by the 2002 World Summit:

- a) To continue to see Parties developing and implementing National Wetland Policies and Strategies, in consultation with Major Groups and across the whole of government to ensure the engagement of 'development' Ministries;
- b) To see National Wetland Policies and Strategies implemented as integrated parts of broader environment (water, biodiversity, coastal zone, etc.) and social programmes;
- c) To continue to promote and foster wetland restoration and rehabilitation;
- d) To continue to see Parties reviewing their legislative frameworks and introducing appropriate amendments to ensure that Ramsar obligations are fully met, and to ensure that such amendments are supported by all Ministries;
- e) To ensure that economic instruments and market and other incentives are operating to promote the conservation and wise use of wetlands, and conversely that any perverse incentives which are promoting unsustainable practices or outright destruction of wetlands are removed;
- f) To continue to apply the highest possible standards of impact assessment for development proposals, which include full and true accounting of the values, services and benefits of wetlands;
- g) To promote the application of Strategic Environmental Assessment to ensure that all government programmes, plans and policies are not working against the obligations of the Ramsar Convention.

Policy review and recommended 'course corrections' for Rio + 10

56. While some progress has been made, most countries have not put in place a decision-making system which fully integrates social, economic and environmental factors at the policy, planning and management levels. Achieving such a goal is of course a considerable challenge even for those countries that have the resources and capacity to do so without assistance. It is clear that the nature of governments is such that bringing about integration of these streams of administration requires very strong political will, supported by high level officials and a community that are committed to achieving sustainable development.

57. The imperatives of food and water security and poverty alleviation are also significant factors which can impede the process of shifting paradigms in government and civil society if not addressed from the perspective of achieving long-term sustainability of ecosystem services.

58. It is apparent that Parties need to be encouraged (and supported as necessary) to continue their processes of policy and legal reform in order to allow sustainable development to become a reality. What is being seen is an increasing number of exemplars or models in this regard, and Rio+10 must find ways to be more effective in transferring and making these available to other States. In areas such as impact assessment, economic instruments and market and other incentives, and integrated environmental and economic accounting, there is now a menu of options to consider. The challenge is to make this menu more accessible to be taken up and adapted to national situations.

59. There would also seem to be a need for Rio+10 to urge Parties to consider governance reforms that will achieve two primary objectives:

a. the establishment within government of a primary driver of sustainable development, one that can accelerate the integration of social, economic and environmental factors. Such a driver could be a task force, high level council, or Ministry established by and reporting to the President or Prime Minister. Without this level of commitment to Agenda 21, it is difficult to see much in the way of rapid progress occurring in many countries; and

b. the decentralization or delegation of decision-making to the most appropriate management level. The 'ecosystem approach' developed under the Convention on Biological Diversity advocates this through its Principle 2 and suggests that decentralized systems may lead to greater efficiency, effectiveness and equity. The gathering experience in those countries where this is in place is that this is indeed the case.

Information box 3 - Goals and principles of Uganda's National Policy

The Ugandan Government has adopted a *National Policy for the Conservation and Management of Wetland Resources* to promote the conservation of wetlands in order to sustain their values for the present and future well being of the people.

In support of this aim the Policy sets five goals:

- to establish the principles by which wetland resources can be optimally used now and in the future;
- to end practices which reduce wetland productivity;
- to maintain the biological diversity of natural or semi-natural wetlands;
- to maintain wetland functions and values; and
- to integrate wetland concerns into the planning and decision making of other sectors.

Three principles apply in pursuit of these goals:

- Wetland resources form an integral part of the environment and their management must be pursued in the context of an interaction between conservation and national development strategies and activities.
- Wetland conservation can only be achieved through a coordinated and cooperative approach involving all the concerned people and organizations in the country including the local communities.
- It is of vital importance for wetland conservation and management that the present attitudes and perceptions of Ugandans regarding wetlands be changed.

Thirty-six specific policy statements are made on how the goals will be achieved, and a preliminary set of guidelines for wetland resource users is annexed.

From Ramsar Wise Use "Toolkit" Handbook 2, "Developing and implementing National Wetland Policies"

Information box 4 - Restoration and rehabilitation as an element of national planning for wetland conservation and wise use

The issues and developments in the field of wetland restoration have been considered by several Ramsar Conferences of the Contracting Parties and it is clear that, globally, the

repair of wetlands is now recognized as a vital element of restoring or retaining 'healthy' ecosystems – especially for river systems and coastal zones. At Ramsar's COP7, consideration was given to ensuring that wetland restoration and rehabilitation were an integral part of national and sub-national policies and planning processes. A review paper (Ramsar COP7 DOC. 17.4) was prepared by Hans Skotte Moller of the National Forest and Nature Agency, Denmark, in consultation with other experts. It is available from the Bureau or through the Ramsar Web site (http://ramsar.org/cop7_docs_index.htm). Ramsar COP7 also adopted Resolution VII.17 on this same subject and annexed to it was the following guidance on elements to be considered when planning or undertaking wetland restoration or rehabilitation programmes or projects.

Elements to consider in restoration and rehabilitation programmes and projects

1. National planning and legislation on protection and sustainable use of nature, environment and water management should be developed to include obligations or, at least, options for wetland restoration. This may also promote the allocation of funds for restoration purposes. It should define restoration objectives and priorities at strategic level, with reference to lost wetland functions, processes and components.
2. Programmes contributing to the fulfilling of international obligations relating to conservation and sustainable use of wetlands should have priority.
3. Multiple purposes such as conservation of biodiversity, provision of reliable food resources, fresh water supply, purification, flood control and recreation may often increase the sustainability and total benefits of a restoration project.
4. Identify and involve all stakeholders at an early stage. The realisation of a project is dependent on cooperation between landowners and/or land-users, public authorities and politicians at different levels, scientific advisory bodies and non-governmental organizations.
5. Monitoring and evaluation of the effects and dissemination of information on the results is needed. Feedback to programme or project operation should be assured, and adjustments made if necessary to achieve the defined targets.
6. Strategic environmental impact assessment and cost benefit analysis are recommended before programme or project approval and implementation.
7. Successfully implemented pilot projects can provide much inspiration and stimuli for the development of forthcoming restoration projects and programmes.
8. General and popular information about effects and consequences before, during and after the implementation of programmes and projects is important.
9. Some important questions to evaluate in advance of projects, in relation to their usefulness and feasibility, include:
 - 9.1 Will there be environmental benefits, e.g. improved water supplies and water quality (reduced eutrophication, preservation of freshwater resources, biodiversity conservation, improved management of "wet resources", flood control)?

9.2 What is the cost effectiveness of the project? The investments and changes should in the longer term be sustainable, not only yielding temporary results. Aim for low costs in the construction phase; and aim for low or nil running costs for future maintenance. When establishing the cost effectiveness of the restoration projects, take into account all possible added benefits from restoring the sites.

9.3 What options, advantages or disadvantages will the restored area provide for local people and for the region? These may include health conditions, essential food and water resources, increased possibilities for recreation and ecotourism, improved scenic values, educational opportunities, conservation of historical or religious sites, etc.

9.4 What is the ecological potential of the project? What is the present status of the area in terms of habitats and biological values? How is the area expected to develop with respect to hydrology, geomorphology, water quality, plant and animal communities, etc?

9.5 What is the status of the area in terms of present land use? The situation will differ widely between developing countries, countries with economies in transition, and developed countries and with respect to the objectives of restoration and rehabilitation. In particular, marginal lands yielding few benefits in the present situation can often be improved.

9.6 What are the main socio-economic constraints? Is there a positive regional and local interest in realising the project?

9.7 What are the main technical constraints?

From Ramsar Wise Use 'Toolkit' Handbook 2, "Developing and implementing National Wetland Policies"

Information box 5 - Rationalizing laws and institutions in Costa Rica through a National Wetlands Law

Costa Rica has developed a National Wetland Conservation Strategy, a significant step towards meeting its obligations under the Ramsar Convention. The Strategy, with its goal of achieving wise use of wetland resources, urges the protection and wise use of wetland ecosystems through the production of appropriate technical, legal and administrative tools for the many groups concerned with wetland conservation. These groups include governmental organizations, local governments, NGOs, private sector and local users.

In developing the Strategy, considerable work had to be done in documenting wetland legislation and policies in an effort to rationalize the confusing array of institutions and legislative instruments dealing with wetland conservation. It became clear during this process that the existing legislation, along with the number of authorities which had some responsibilities relating to wetlands, resulted in confusion and overlap of administrative authority. This was considered a serious obstacle to applying the wise use principles of the Convention and highlighted the need for a new Wetlands Law to regulate the use of wetland ecosystems.

The evolution of the Wetlands Bill is summarized below. The six steps reflect the importance of the development of the National Strategy and its review and analysis of

legislation, in the development of this new law.

Step 1: In developing the National Wetland Conservation Strategy, the Ministry of Environment and Energy (MINAE) carried out a series of consultations with national and international specialists to prepare a package of basic information pertaining to wetlands and their wise use.

Step 2: During this process, all legislation and policies related to wetlands were compiled, as well as international agreements ratified by this country that had a direct relationship to conservation and use of wetlands.

Step 3: The summarised legislation and policies were analysed and a *Guide to Procedures for the Management of Wetlands in Costa Rica* was published. The Guide presents the most relevant legislation and procedures for the conservation and wise use of wetlands, as well as a concise analysis of experiences in the management of wetlands.

Step 4: With the information obtained in steps 1 through 3 the need for a Wetlands Law was identified and a multidisciplinary Commission charged with initiating this process was created. The Commission included representatives from various ministries (including MINAE) as well as experts in wetland ecology, environmental law, forestry engineers, sociologists and economists. After a series of meetings, the Commission wrote the first draft of the Wetlands Bill.

Step 5 Through a series of workshops, the first draft was presented to the different sectors of society which had been involved in the development of the National Strategy and further refined. The draft text was also mailed to different governmental organizations, private enterprises, government employees and international experts in order to receive their comments and observations.

Step 6: After 11 re-drafts of the Bill, reflecting a serious attempt to involve all sectors of society in the drafting process and produce a consensus document, the final draft was ready for presentation to the Legislative Assembly.

The new Wetlands Law should help to resolve some of the problems identified during the development of Costa Rica's National Wetland Conservation Strategy.

Full text of the case study on 'Legal aspects of the conservation and wise use of wetlands in Costa Rica', by Grethel Aguilar, IUCN- The World Conservation Union, is available from the Ramsar Bureau's Web site: http://ramsar.org/wurc_index.htm.

From Ramsar Wise Use 'Toolkit' Handbook 3, "Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands"

Information box 6 - Australia enacts landmark legislation to protect Ramsar sites and migratory birds

In July 2000 Australia's national government brought into force landmark legislation – the *Environment Protection and Biodiversity Conservation Act 1999* – which for the first time in that country gave special legal status to Wetlands of International Importance and migratory birds. The Act superseded (and repealed) several previous pieces of legislation, although notably none of these applied to Ramsar sites or migratory birds.

Under the Act Ramsar sites and migratory species (in addition to World Heritage

properties, threatened species and communities and more) are declared of "national environmental significance" and are given protection. With respect to Ramsar sites, Schedule 6 of the Act sets out the legal obligations, which include describing and maintaining the 'ecological character' of the sites, formulating and implementing planning to conserve the sites and promote wise use, preparing a suitable management plan and the standards of impact assessment which will apply should this be required. The Act also enshrines what have been called the Australian Ramsar Management Principles which give guidance in terms of what is expected in the management plans for Ramsar-declared areas.

Perhaps one of the most innovative aspects of the new legislation is that it gives the Australian Federal Minister for the Environment the option to 'declare' any wetland providing he/she is satisfied it that "is of international significance because of its ecology, botany, zoology, limnology or hydrology", and where the ecological character of all or some of the site is threatened. This new power means that any wetland worthy of Ramsar listing, and which is facing threat, can be protected by the Federal Government.

With respect to migratory fauna, the new legislation recognizes that certain listed species are of 'national environmental significance' and should therefore be protected. Those species listed include all of those covered by Australia's bilateral migratory bird agreements with Japan and China – which includes all of the migratory shorebirds that traverse the East Asian–Australasian flyway.

This legislation is new in the Ramsar context because, first, it gives Ramsar sites and migratory birds a much higher and more rigorous legal protection than they have enjoyed in the past. Second, the legislation enshrines Ramsar concepts such as 'ecological character' in law. Third, the law requires that all Ramsar sites have their ecological character benchmarked and have management plans prepared for each site (and these plans must meet certain standards). Fourth, the law provides a mechanism for protecting any wetland which meets the Ramsar criteria, even if the site has not yet been designated under the Convention. Fifth, the new Act places great emphasis on managing threats external to the actual sites, such as those threats which may result from poor water management decisions somewhere in the catchment of the site, or the potential impact of an invasive species on the site. And, finally, the Act also seeks to promote the involvement and consultation with stakeholders.

To find out more about the Act consult the Web site for Environment Australia at <http://www.environment.gov.au/epbc/>

Information box 7 - *Economic Valuation of Wetlands*

By Edward B. Barbier, Mike Acreman and Duncan Knowler

Published in 1997, this 138-page handbook provides practical guidance to policy makers and planners on applying economic valuation techniques in wetland management.

Following a brief synopsis of the importance of wetlands and the many causes of wetland loss, the authors explain the role of economic valuation in decision-making. They discuss why wetland values are frequently undervalued and emphasize the need for Contracting Parties to the Ramsar Convention to use appropriate valuation techniques to ensure the conservation and wise use of their wetlands. The authors provide a detailed framework for assessing the economic benefits of alternative uses of wetlands, presenting it as a three-stage process:

- defining the problem and choosing the correct economic assessment approach;
- defining the scope and limits of the analysis and the information required for the chosen assessment approach; and
- defining data collection methods and valuation techniques required for the economic appraisal, including any analysis of distributional impacts.

Successful completion of the three stages should yield an economic valuation of the wetland, indicating to policy/decision-makers whether or not the option should proceed. In a later chapter, the three stages are broken down into seven practical steps, providing readers with detailed advice on choosing the most appropriate methodology and conducting the valuation study.

Six case studies provide invaluable practical demonstrations of the application of the various techniques in the field using a range of valuation methods and covering contrasting wetland types and diverse geographical areas. Highlighting the need for integrating ecological, hydrological and economic approaches, they demonstrate that valuation is not an end in itself but must be directed towards policy issues. The utility of the book is further enhanced with the provision of a full glossary and a 10-page bibliography.

The book is available in English, French and Spanish on the Ramsar Web site at http://ramsar.org/index_lib.htm

And from:

IUCN Publication Services Unit
219c Huntingdon Road, Cambridge CB3 0DL, United Kingdom
Fax: +44 1223 277 175; E-mail: info@books.iucn.org

Information box 8 – Valuing wetland services - Groundwater replenishment

- Many wetlands help recharge underground aquifers that store 97% of the world's unfrozen freshwater.
- Groundwater is of critical importance to billions of people as their only source of drinking water.
- Groundwater is the only source of water for many irrigation programmes – 17% of the world's cropland is irrigated.
- In the Messara Valley of Crete almost 50% of the recharge comes from stream beds in the catchment.
- Three rivers in Tunisia recharge aquifers during periods of flood – the rivers run dry at certain times of the year but the aquifers supply irrigation water year-round.
- A 223,000-hectare swamp in Florida has been valued at US\$ 25 million per year for its role in storing water and recharging the aquifer.
- In northern Nigeria the value of wetlands in recharging aquifers for domestic water use has been valued at US\$ 4.8 million per year.

Section 3. Role of major groups

3.1 Introduction

60. In Chapters 23-32, Agenda 21 focuses upon the importance of the involvement of all social

groups, and in particular states that "one of the fundamental pre-requisites for the achievement of sustainable development is broad public participation in decision-making". (Paragraph 23.2).

61. At the generic level the Ramsar Convention has promoted, and witnessed, a major increase in the hands-on involvement and engagement of local people in the management of wetland resources. This has been achieved through a combination of raised awareness of the importance of wetlands to community health and well being (see section 4 following), their vital role in alleviating poverty and in food and water security, the increasing number of wetland outreach activities and education centers, the increase in the number of cross-sectoral National Ramsar or Wetland Committees, and the growth in the level of interest and participation by international, national and local non-governmental organizations (see section 3.4 below).

62. Of the nine Major Groups considered in detail in Agenda 21, perhaps the most notable achievements of the Ramsar Convention over the past decade have focused on the broad category of "local and indigenous peoples", business and industry, non-governmental organizations, and the scientific and technological community. These are highlighted below.

3.2 Local and indigenous peoples

63. At its COP7 (1999) the Ramsar Convention adopted *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands*. These guidelines, developed by a consortium of NGOs, are based on the lessons learned from 23 documented case studies and three regional workshops and benefited from direct input from indigenous people's representatives from around the world.

64. The Guidelines have since been published as Handbook 5 of the Ramsar Wise Use 'Toolkit' (see section 1), and should facilitate a continuing growth in the active involvement of local people from across the major groups identified in Agenda 21, in the conservation and sustainable use of wetlands.

65. As a follow up to the above Guidelines, IUCN-The World Conservation Union and WWF are collaborating with the Ramsar Bureau to establish a support mechanism – the so-called *Participatory Management Networking Service*. This Service will facilitate the dissemination of information relating to participatory management, serve to link existing networks and institutions with an interest in this area, and provide for a free flow of rich and diverse experiences.

3.3 Business and industry

66. The National Reports submitted to Ramsar COP7 (1999) indicate some growth in support from the business sector for wetland conservation and wise use. Forty-seven Parties advised of increasing private sector involvement in wetland conservation and wise use. Although it has to be acknowledged that this applies mostly to developed countries, where local-scale sponsorship of wetland stewardship or restoration is increasing, nevertheless this is a promising trend for the future.

67. A significant partnership with the business sector has been forged by the Ramsar Convention with the transnational company, the Danone Group. This, the so-called Evian Initiative, brings these partners together with the national government of France and the administration of the town of Evian. As outlined in the accompanying information box, under this sponsorship arrangement a range of on-ground, capacity building and awareness raising activities are being supported in developing regions of the world. With the theme of "**Caring for water resources and water quality**", the partnership is a model for advancing the importance of wetlands as part of providing water security for the future. (See [Information box 11](#) at the end of this section.)

3.4 Non-governmental organizations

68. Chapter 27 of Agenda 21 emphasizes the vital role that non-governmental organizations (NGOs) play "in the shaping and implementation of participatory democracy" and stresses that "Formal and informal organizations, as well as grass-roots movements, should be recognized as partners in the implementation of Agenda 21." (Paragraph 27.1)

Ramsar's International Organization Partners

69. At the global level the Ramsar Convention has had since its inception four international NGO partners – BirdLife International, the World Conservation Union (IUCN), Wetlands International, and the World Wide Fund for Nature (WWF). In 1999, at Ramsar's 7th Conference of Parties, this special relationship was further formalized through Resolution VII.3 which created the status of International Organization Partners of the Convention.

70. These NGOs are now full members of the Convention's Scientific and Technical Review Panel (STRP) and provide invaluable support and assistance to the Convention secretariat and the Parties through their respective regional networks and technical expertise. In many countries, these International Organization Partners play a prominent role in supporting implementation of the Convention through their direct involvement in bodies such as National Ramsar or Wetland Committees or equivalent biodiversity or sustainable development forums. They are in effect providing extension services for the Convention, assisting with capacity building and mobilizing funds from the donor community.

Ramsar's other NGO partners

71. The Ramsar Convention has also added to its partnership approach with international and regional NGOs through a Memorandum of Understanding with Eurosite, signed in 1999, and a Memorandum of Cooperation with The Nature Conservancy signed in 2000. Both will bring closer collaboration and support for the implementation of the Convention through the extensive networks of these organizations. In the case of Eurosite this links the more than 70 conservation bodies, most of which manage protected areas inside Ramsar sites in Europe, with the established Ramsar networks in order to facilitate the bilateral and multilateral exchange of information and best practice in conservation management.

72. The mission of The Nature Conservancy (TNC) is to conserve plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. Founded in 1951, The Nature Conservancy is an international conservation group with over one million members. TNC has helped to protect more than 11 million acres of habitat in the United States and nearly 60 million acres in Canada, Latin America, the Caribbean, Asia and the Pacific. It currently manages 1,340 reserves, the largest system of private nature sanctuaries in the world. Its results-oriented, non-confrontational approach allows it to forge partnerships with landowners, corporations, and governments. Its commitment to working with local people gives it an on-the-ground presence in communities around the world.

The activities of NGOs nationally

73. Nationally, the involvement of NGOs in the work of the Ramsar Convention has increased steadily over the past decade. At the time of Ramsar's 7th Conference of Parties, the National Reports of 90 Parties provided voluntary information about NGO involvement in wetland conservation and wise use, as follows:

- a) Eighty-seven Parties reported that there were international, regional or national NGOs involved in wetland conservation and wise use;
- b) Forty-five Parties indicated that they have consultative arrangements in place to allow

NGO input to national decision-making and policy-setting relating to wetlands;

c) Eighteen Parties reported that they either regularly or occasionally include an NGO representative on their official delegation to Ramsar Conferences of Parties; and

d) Thirty-three Parties have NGO involvement with Ramsar site management committees, where such committees are in place.

74. These statistics are by no means authoritative, but they do give an indication of how involved in wetland issues NGOs are today. It is true to say that wetlands have now gained as much prominence as a community issue as the iconic rainforests and coral reefs (which in fact are ‘wetlands’ under the Ramsar definition), and the upsurge of community interest has brought about the formation of many NGOs, particularly in developed countries, which are specializing in wetland and water resources issues.

75. Ramsar’s International Organization Partners have further strengthened their efforts. These international organizations are helping to catalyze the involvement of regional and local NGOs in the work of the Ramsar Convention, and especially in national policy setting and local stewardship. However, despite these encouraging signs, there remains much to be done to give NGOs the level of involvement and ‘ownership’ needed in order to see full and true participatory management occurring.

3.5 Scientific and technological community

76. Agenda 21’s Chapter 31 considers the involvement of the scientific and technological community in both national and international dialogue relating to sustainable development. It notes the need for closer interaction between policy-makers and the scientific and technological community in order to develop strategies for sustainable development based on best available knowledge (Paragraph 31.2).

77. The Ramsar Convention has taken several steps to address this area of Agenda 21, as follows:

a) establishment of a **Scientific and Technical Review Panel (STRP)**, an independent, regionally-constituted body of 13 experts (plus observers), elected by each Conference of Parties, which intersessionally reviews key issues and develops guidance for the Parties as appropriate. The Ramsar Wise Use ‘toolkit’ contains a considerable amount of the work undertaken by the STRP over the past 6 years.

b. At Ramsar COP7 (1999), permanent observers were added to the STRP (including the chairs of the counterpart bodies on the Convention on Biological Diversity, the Convention on Migratory Species and the Convention to Combat Desertification (see section 8 for further details)), an action that was taken to foster collaboration and cooperation between the scientific and technical bodies of these Conventions. The Ramsar STRP also includes as permanent members representatives of the Convention’s International Organization Partners, who provide access to their extensive expert working groups and similar bodies. Further it has observers from the Society of Wetland Scientists, the International Association of Limnology, the Global Wetlands Economics Network, the International Mire Conservation Group, and the International Peat Society.

c) In order to facilitate the input of expert views from the Parties of the Convention, and to accelerate the flow of information out from the STRP to national and local experts, Ramsar’s 7th Conference of Parties also created positions of National Focal Point for STRP business. Each Party is now nominating such a focal point who is expected to liaise with the regional member of the STRP and to transfer information out through their respective scientific networks. An important expectation is that these national focal

points will collaborate closely with their national counterparts for the other international and regional environment Conventions.

d) In June 1999, the Ramsar Convention Bureau entered into a Memorandum of Cooperation with the Society of Wetland Scientists (SWS), which numbers over 4,500 members from Canada, the USA, Mexico and about 20 other countries. Through this arrangement the SWS has established the Ramsar Support Framework with annual grants to support specific small-scale projects. The SWS is also an observer to the Ramsar STRP, thus providing the Convention with access to the enormous expertise SWS has at its disposal.

e) The maintenance of the Ramsar Sites Database of wetlands included in the List of Wetlands of International Importance (which now numbers 1050 sites) has traditionally been done by one of the Convention's International Organization Partners, Wetlands International. While this arrangement continues, the Ramsar Convention in February 2000 signed a tripartite Memorandum of Understanding with Wetlands International and The Centre for International Earth Science Information Network (CIESIN) at Columbia University in the USA, which is leading to the development of an on-line data gateway for Ramsar site information. This powerful tool for interrogating and manipulating spatial and other data will make possible more sophisticated mapping, planning and projections of land-use patterns and demographics in association with the world's premier wetland resources.

f) Ramsar is also participating (along with UNEP, the Convention on Biological Diversity, the Convention to Combat Desertification, and others) in the recently launched Millennium Ecosystem Assessment. The Secretary General of the Ramsar Convention and the Chair of Ramsar's STRP are members of the Board for the project.

78. A related issue for the Ramsar Convention, and a major priority of the Convention's STRP, is that of wetland inventory. All efforts to implement the Ramsar Convention and apply Agenda 21 are clearly being hampered by the poor state of wetland inventory globally. It is hoped that the Millennium Ecosystem Assessment and the Global International Waters Assessment will bring about flow-ons into national wetland inventory around the globe.

79. For Ramsar COP7 (1999), just 42 Parties reported that they have completed a national wetland inventory. As indicated in [Information box 13](#) below, a review of existing wetland inventory data done by Wetlands International reveals this to be a major impediment to applying Wise Use and to taking a systematic approach to further Ramsar site listings. Rio+10 needs to recognize that this is a major weakness to the implementation of Agenda 21 as well.

3.6 Thematic and policy review and recommended 'course corrections'

80. Ramsar's contributions to this area of Agenda 21 are considered to be as follows:

a) seventy-two Parties which report that the participation of local stakeholders in the conservation and wise use of wetlands is being encouraged;

b) adoption of the *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Handbook 5 in the Ramsar Wise Use 'Toolkit');

c) thirty-three Parties (42%) which have wetland site management committees that include local stakeholders;

- d) the establishment of the Participatory Management Networking Service;
- e) Ramsar's "Evian Project" – a partnership between a transnational company (the Danone Group), and international convention, a national government (France), a local administration and an NGO;
- f) forty-seven Parties that report increasing private sector involvement in wetland conservation and wise use;
- g) strong and productive working partnerships with Ramsar's International Organization Partners – BirdLife International, IUCN-the World Conservation Union, Wetlands International, and WWF International;
- h) new partnerships with Eurosite and The Nature Conservancy;
- i) an increasing involvement of NGOs in wetland issues – 87 Parties reporting such involvement, 44 Parties where consultative mechanisms are in place between NGOs and Government, 18 Parties that have NGO representatives on official delegations to Conference of Parties to the Ramsar Conventions;
- j) Ramsar's small-scale, yet highly productive subsidiary scientific body – the Scientific and Technical and Review Panel, and the network of national STRP Focal Points being established;
- k) partnership arrangements with the Society of Wetland Scientists and with the Centre for International Earth Science Information Network (CIESIN) at Columbia University, USA; and
- l) participation in the Millennium Ecosystem Assessment.

Ramsar's Rio+10 challenges

81. Some of the challenges facing the Ramsar Convention for the future are:

- a) to continue to encourage and support the active involvement of local, regional, national and international 'stakeholders' from all the major groups in the conservation and wise use of wetlands;
- b) to encourage governance systems to decentralize and delegate the management of ecosystems to the most logical and effective level, in most cases river basins or catchments;
- c) to seek particularly to engage the involvement and support of the business and industry Major Group in the local, regional and international work of the Convention;
- d) to maintain strong and productive working partnerships with the Convention's International Organization Partners (BirdLife International, IUCN, Wetlands International, and WWF) and seek other similar partnerships with other international organizations;
- e) to encourage and assist Parties to adopt measures which will ensure that grassroots stakeholders, the business sector, and other groups are fully consulted and involved in the national implementation of the Convention;

f) to see the scientific community mobilized to provide advice and information to guide the conservation and wise use of wetlands;

g) to seek operational links and shared work programmes between the respective subsidiary scientific bodies of the UNCED-related Conventions;

h) to continue developing wetland inventory tools and encouraging all Parties to assemble and maintain comprehensive datasets of these natural assets; and

i) to develop the proposed *Participatory Management Networking Service*, and through it to see major groups continuing to increase their involvement in the conservation and wise use of wetlands.

Policy review and recommended ‘course corrections’ for Rio+10

82. Under the thematic review relating to ‘Decision-making structures and institutions’ (section 2.6) it was observed that the progress toward achieving governance structures which fully integrate social, economic and environmental factors at the policy, planning and management levels was very slow, and possible ‘course corrections’ to address this were made. One such ‘course correction’ is for Rio+10 to promote the decentralization or delegation of decision-making to the most appropriate management level, as advocated in CBD’s ecosystem approach.

83. Experience in many countries has now shown that participatory management, at the appropriate ‘ecosystem’ level, can greatly improve efficiency and effectiveness in natural resource management, and also assist with addressing equity and access issues. With the recognition that wetlands are an intrinsic element of the planet’s hydrology, this is certainly a priority for the Ramsar Convention - to see participatory management and integrated water resource management in place in the all of the world’s river basins.

84. Rio+10 is urged to support this goal and seek the resources to accelerate the introduction of participatory management regimes in the most ‘stressed’ river basins initially, and subsequently in all others. It is recognized that a large number of these are transboundary in nature and this adds complexities that will have to be dealt with. Again, there are now a significant number of multi-Party river basin commissions and similar cooperative agreements in place to indicate that solutions can be found, even where significant tensions exist over shared water systems.

85. In terms of the Major Groups, it appears that the point has not yet been reached where all interests are routinely involved in matters of natural resource management. Ramsar’s recent experience shows that not all Parties have open consultative processes which permit those representing the Major Groups to have their say in national, and in some cases local, policy setting and planning for natural resource management.

86. Business and industry, trade unions, children and youth or farmers are not yet strongly represented at CBD’s or Ramsar’s Conference of the Parties, for example. It is necessary to ask why, and to consider whether this is the way to achieve sustainable development. Likewise, the reverse applies: there is a need for bodies such as the World Trade Organization to have stronger input from conservation and sustainable development expertise. These are fundamentals of moving ahead with Agenda 21. If all interests are not brought together and a broader cross-section of views considered, integrating social, economic and environmental factors will take much longer to achieve.

87. Another priority for Rio+10 to address is that of the poor quality of inventory information relating to society and the environment. As Ramsar has found, unless Parties have at their disposal high quality data upon which to base integrated planning, much of the product has to be based upon guess work and speculation. While it is hoped that through the Millennium Ecosystem Assessment and the Global International Waters Assessment this problem can be addressed in part, the challenge will

remain of getting this information into the hands of the people who need it, and ensuring that they have the capacity to interpret and apply such information. Rio+10 needs to recognize that this is a major weakness to the implementation of Agenda 21 at present and one that requires a concerted effort.

Information box 9 - The cultural importance of wetlands

- Although largely an unexplored, poorly documented subject, wetlands are frequently of religious, historical, archaeological or other cultural significance at the local or national level.
- In a preliminary survey of Ramsar sites, over 30% of a sample of 603 Ramsar sites recorded some archaeological, historical, religious mythological or cultural significance at either local or national level.
- In Portugal, despite the investment of US\$ 150 million, authorities abandoned the construction of the C6a Dam in 1995 when Palaeolithic engravings were unearthed.
- In Tibet certain lakes have deep religious significance for local populations and associated with this are strict regulations that determine exploitation of the lakes.
- The Coburg Peninsula Ramsar site in Australia has great significance for the traditional Aboriginal owners, who still conduct an active ceremonial life and undertake semi-traditional hunting and gathering.
- The operation of the Gei Wai, a traditional way of shrimp cultivation practised by local people for hundreds of years, can only be seen by Hong Kong residents at the Mai Po marshes Ramsar site.
- The Stavns Fjord Ramsar site in Denmark is an outstanding archaeological site from the Bronze age.
- Divers in Lake Titicaca have recently discovered a temple that pre-dates the Inca period.

Information box 10 - Learning from Indigenous Knowledge Systems (IKS)

After hundreds or thousands of years of living in a landscape, indigenous communities often have complex practices for the sustainable management of their land. These systems may appear very different to those of western science, yet indigenous approaches can complement and improve upon scientific conservation management in ways that can be much more relevant to landholding communities. Indigenous land management practices are often well tested, can produce similar results to western approaches, can be cheap, and, through religious or spiritual sanctions, can sometimes be more effectively enforced (Clay 1988).

The **Tonda people of the southern savannas of Papua New Guinea** and the **Maya of Quintana Roo, Mexico**, have a number of resource management approaches that are important for biodiversity conservation. These provide the basis for a more informed management approach in their respective regions.

1. **Landscape zoning:** Among the Tonda, land is traditionally divided by vegetative and use characteristics into big bush, open bush country, open places or clear places, and seasonal swamps. Among the Maya, forests are divided in respect to the types of limestone soil, of which they recognize 10 major categories. Only the four best categories are used for slash and burn agriculture; all other forest categories are used to gather plants and timber and for game hunting, including seasonally flooded forests and

grasslands. Permanent wetlands are used for fishing.

2. **Areas with entry restrictions:** Among the Tonda, certain areas are barred from entry to all or certain parts of the population. Major and minor storyplaces generally have strong restrictions on entry or use, including hunting. Origin places, where a clan or moiety is thought to have been created, are often closed to entry or may be entered only on permission of a custodian.

3. **Areas with activity restrictions:** Among the Tonda, the areas with entry restrictions also generally carry restrictions on the harvest of wild animals, cutting of forest, planting of gardens or the removal of certain plants. Other significant sites include old village sites and burial sites which carry restrictions on certain activities such as building and gardening. The Mayan zoning scheme is a gradient including settlements, slash and burn agriculture, timber extraction and forest management, hunting/fishing and plant gathering, and strict conservation. Some pristine tracts of forests are conserved as a home for the forest spirits.

4. **Periodic harvesting restrictions:** Among the Tonda, seasonal restrictions can be placed on the hunting of animals or the collection of plants. This may be to prevent overuse during stressed seasons or for ritualistic purposes.

5. **Species harvest restrictions:** Among the Tonda, certain species, such as crocodile or eagle, have totemic significance and may be barred from hunting, and size limits are traditionally placed on some wildlife or fish.

6. **Fire control:** Among both the Tonda and the Maya, fire is a widely used management tool. However, there are traditional controls on when and why they may be lit.

Full text available from the Ramsar Convention Bureau's Web site:
http://ramsar.org/wurc_index.htm.

From Ramsar Wise Use 'Toolkit' Handbook 5

Information box 11 - The Evian Project – "Caring for water resources and water quality"

At the global level, the Ramsar Convention's first partnership with the private sector began in January 1998 with the signing of the Memorandum of Understanding between the Convention and the Danone Group including the Société des Eaux Minérales d'Evian, with the cooperation of the town of Evian and the Conservatoire de l'Espace Littoral et des Rivages Lacustres, and with the support of the Fonds Français pour l'Environnement Mondial.

The action programme supported six main themes: transfer of know-how; training; water and health; the Evian "Encounters" seminar series; support for Ramsar communications; and a special Evian cash prize for the Ramsar Wetland Conservation Awards. The financial provisions in support of these themes totalled 13.5 million French francs, including 4 million francs from the Danone Group, 5.5 million from the town of Evian, and 1.5 million francs from the Fonds Français, the latter earmarked for the development of an information and communication centre at Evian with the aim of enhancing and promoting the action programme.

Within the action programme, funds have been used to support several activities closely

associated with developing communication and awareness. Three 'Evian Encounters', taking place in the town of Evian, France, were aimed at raising awareness of wetland conservation policies among high-level decision-makers from countries located in priority conservation regions - the Neotropics, French-speaking African countries, and Western Asia.

Under the theme 'support for Ramsar communications', the Ramsar Administrative Authorities in 11 Contracting Parties have already benefited from financial assistance for the costs associated with establishing and maintaining an Internet connection. Additionally, funds have been used to produce copies of the Ramsar Information Pack in Arabic, Chinese, and Farsi.

Information box 12 – Valuing wetland services – Sediment & nutrient retention and export

- Wetlands slow the passage of water and encourage the deposition of nutrients and sediments carried in water.
- Nutrient retention in wetlands makes them among the most productive recorded, rivalling even intensive agricultural systems.
- Coastal deltas are dependent on riverine sediments and nutrients for their survival; engineered structures that interfere with the natural movement of sediments and nutrients can degrade deltas.
- The Rhine river has lost 90% of its natural floodplains and now flows twice as fast as before.
- The Hadejia-Jama' are floodplain in northern Nigeria has long supported tens of thousands of people through fishing, agriculture, fuelwood and fodder production, livestock and tourism. Using the water in this way has been valued at US\$ 45 per 1,000 cubic metres in contrast to US\$ 0.04 for the value of diverted water for a proposed irrigation scheme.
- Efforts to restore the Waza-Logone floodplain in Cameroon over an 8-year period cost over US\$ 5 million.

Information box 13 - Inventories and data

Action 6.1.3 of the Ramsar Convention Strategic Plan, adopted at the 6th COP in Brisbane, Australia, in 1996, sought to encourage the use of regional wetland directories, national scientific inventories and other sources to begin to quantify the global wetland resource. This would be used as a baseline for monitoring trends in wetland conservation and loss. In response, the Ramsar Convention Bureau, with funds provided by the UK, engaged Wetlands International to prepare a *Global review of wetland resources and priorities for wetland inventory* for the Convention's COP7, and a summary of this review was tabled at the meeting as COP7 DOC. 19.3. This document is available from the Bureau's Web site at http://ramsar.org/cop7_docs_index.htm.

The full review, including the summary presented at COP7, is available on CD-ROM from Wetlands International, PO Box 471, 6700 AL Wageningen, The Netherlands (e-

mail icu@wetlands.agro.nl). The Review contains several significant recommendations which are reflected in Resolution VII.20 adopted by COP7. In particular, the recommendations relating to future developments in the area of wetland inventory are relevant here, as they urge the Convention to move toward advocating global standards and practices.

The Wetlands International Review also notes that Ramsar's Mediterranean Wetland Initiative (MedWet) has developed an excellent and highly adaptable inventory 'toolkit' (*Mediterranean Wetland Inventory*) which could form the basis for a Ramsar Convention 'toolkit' also. While the matter is under more detailed review by the Scientific and Technical Review Panel of the Convention at present, those undertaking or considering inventory programmes are urged to consider using the MedWet 'toolkit'.

The *Mediterranean Wetland Inventory: A Reference Manual* can be obtained from Wetlands International, PO Box 7002, 6700 AL Wageningen, The Netherlands, or Instituto de Conservação da Natureza, Rua Filipe Folque, 46-3⁰, 1050 Lisboa, Portugal.

The Wetlands International report also draws attention to those wetland types for which inventory data is clearly lacking, and Contracting Parties are urged to give this their priority attention through COP7 Resolution VII.20. Consistent with these gaps in inventory coverage, many of these same wetland types remain poorly represented in the List of Wetlands of International Importance. This Strategic Framework for the development of the List aims to rectify this shortcoming. The relevant section of the Report (paragraph 63) states:

"Attention must also be given to the inventory of priority wetland habitats, targeting those for which there is little or no information, and those at greatest risk of degradation and destruction. Based on this study the priority wetland habitats are:

seagrasses - in Southern Asia, the South Pacific, South America and some parts of Africa are under increasing threat from pollution, coastal development, destructive fishing practices, recreational use, etc.;

coral reefs - are an important biodiversity resource that is under continuing threat globally due to the development, deforestation and pollution of coastal and inland wetlands;

salt marshes and coastal flats - have generally been overlooked in wetland inventories, with few real estimates and no true global 'picture' available. However, they are under increasing threat worldwide, particularly in Africa, Asia and Oceania due to increasing coastal development;

mangroves - are better mapped than other coastal and marine wetlands, but serious inconsistencies exist and more comprehensive inventory is required. This should be used to better determine the mangrove loss that is proceeding at an alarming rate in many parts of Africa, Southeast Asia and Oceania through deforestation, land reclamation, and development for aquaculture;

arid-zone wetlands - are generally poorly mapped but increasingly important in the light of escalating population pressures and water demand. For example, in Africa and the Middle East, pressures for increased water supply have led to the construction of many large dams and to disputes over transboundary sharing of limited water resources;

peatlands - are well mapped in comparison to other wetland habitats. However, they are threatened by drainage for agriculture and afforestation in Asia, parts of Europe and North America in particular, despite their importance as a global carbon sink and economic resource, and are poorly known in tropical regions such as southeast Asia;

rivers and streams - are seriously threatened by industrial and domestic pollution, water diversion, and regulation in many regions of the world. Although generally considered to be well mapped, it is difficult to obtain real estimates of rivers and streams and the extent of associated swamps, marshes, oxbow lakes and lagoons;

artificial wetlands – are increasingly important with reservoirs, dams, salinas, paddy, and aquaculture ponds important in many regions, notably Asia, Africa and the Neotropics, where they can provide habitat for wildlife, particularly migratory birds. Under some circumstances they provide many values and benefits to humans and can partially compensate for the loss and degradation of natural wetlands."

Section 4. Education, public awareness, training and capacity building

4.1 Introduction

88. Chapter 36 of Agenda 21 provides a framework for actions relating to education, public awareness and training, dividing these subjects into three programme areas:

- a. education for sustainable development;
- b. increasing public awareness; and
- c. promoting training

89. As stated there, these areas of activity are "linked to virtually all areas in Agenda 21, and even more closely to the ones on meeting basic needs, capacity building, data and information, science, and the role of major groups." (Paragraph 36.1).

90. The building of endogenous capacity to implement Agenda 21 requires each country to consider their human, scientific, technological, organizational, institutional and resource capabilities (Paragraph 37.1). Under its Chapter 37, Agenda 21 sets objectives in terms of ongoing participatory processes to define capacity needs, reorienting technical cooperation and priorities, strengthening institutional structures, and improving institutional capacities.

91. In the following sections some of the accomplishments of the Ramsar Convention in these four closely related areas are summarized.

4.2 Education, public awareness and training

92. Overall, the past decade has seen a significant shift in general community attitudes and behaviour relating to wetlands. Once considered "wastelands", these are now, in most (but not all) countries increasingly being recognized for the range of ecosystem services they provide. This has come about through improved scientific understanding of the roles and functions played by wetlands, through an increase in the efforts to inform the community of these natural assets, and in some instances by the direct negative impact experienced by communities when wetland resources have been converted to other uses.

93. The Ramsar Strategic Plan 1997-2002 dedicates two of its eight Operational Strategies to the areas of education and public awareness (Operational Objective 3) and training and capacity building

(Operational Objective 4). However, in the context of this submission to the Rio+10 process, the following information is presented to correspond to the three Agenda 21 programme areas as specified in the Introduction, namely education for sustainable development, increasing public awareness, and promoting training.

Reorienting education towards sustainable development

94. In their National Reports for Ramsar COP7 (1999), 43 Parties advised that wetlands and Ramsar's Wise Use principles are now included as part of educational curricula. This disappointing level of progress suggests the need for greater priority to be given to this area.

95. Few countries can boast of wide-ranging educational programmes designed to promote sustainable development of wetland resources to the full range of age groups and within both formal and informal learning environments. This remains a major challenge for the Rio+10 process, to see these principles of sustainable development embedded in all forms of learning. Feedback from many countries indicates a fundamental failure of governments to break down the institutional and policy barriers between education ministries and those responsible for sustainable use of natural resources.

Increasing public awareness

96. Parties to the Ramsar Convention have been relatively active in the development of public education programmes, which include material about wetlands. At Ramsar COP7 (1999), 62 Parties reported that such programmes exist. However, this was overshadowed by the indication that in 63 Parties there exist NGO-run public awareness campaigns and programs. Also notable is the increasing number of education centers based at wetland sites. While no statistics are available for this, it is clear that such sites are increasingly viewed as ideal locations for community education and awareness raising. Also evident are an increasing number of exemplary wetland education kits such as those developed for the Tasek Bera site in Malaysia and that for the Rio Grande, Tierra del Fuego of Argentina – the Segismundo cartoon and short story. (See [Information boxes 14](#) and [15](#) at the end of this section.)

Promoting training

97. The promotion of training has been, and remains a priority of the Ramsar Convention. However, despite this attention the indications contained in the National Reports for Ramsar COP7 (1999) were disappointing, as shown in the following summary statistics:

Question	Response
Has a training needs analysis been done ?	19 of 97 (20%) Parties reported "yes"
Has a review of training opportunities been completed ?	23 of 97 (24%) Parties reported "yes"
Have training modules or training programmes specifically for wetland managers e been completed, or are they being developed ?	42 of 97 (43%) Parties reported "yes"
Have nationals of the country gained wetland-related training either within or outside the country ?	74 of 97 (75%) Parties reported "yes"

98. In response to the above findings, the Convention secretariat developed and maintains the *Directory of Wetland Management Training Opportunities*, and with Wetlands International (an official International Partner Organization of the Convention) has begun development of the '*Ramsar Wetlands Training and Advisory Service*'. This initiative, to be launched at Ramsar's 8th Conference

of Parties in Spain in 2002, is designed to do the following:

- a. assist Parties in reviewing their training needs in a systematic and standard way;
- b. develop a comprehensive and interactive directory of training opportunities;
- c. provide an Advisory Service, including a help-desk, to assist Parties in matching their training needs with the available opportunities;
- d. assist those needing training in finding the necessary resources for such training; and
- e. identify and seek to fill gaps in the availability of training at the appropriate level, topic and location.

99. In addition, the Ramsar Convention has its *Small Grants Fund* which has been operating since 1991. This has provided small-scale support (up to 40,000 Swiss francs) for many training-related projects in developing countries and those in economic transition. Also, through the generous support of the Government of the USA, the Ramsar Convention operates the *Wetlands for the Future* programme designed to support training and capacity building in Latin America and the Caribbean. Both of these schemes are described in more detail in section 4.3 which follows.

100. Further, each year since 1994, the Dutch Institute for Inland Water Management and Waste Water Treatment (RIZA), part of the Ministry of Transport, Public Works and Water Management, has hosted the International Course in Wetland Management at the Wetlands Advisory and Training Centre (WATC) in Lelystad. Over the past few years, RIZA has also hosted a separate International Course on Wetland Restoration. Both 4-6 week, certificate-granting courses are organized according to approved Ramsar Convention principles (the Ramsar Secretary General serves as chair of the Advisory Board), and many graduates have returned to their own countries with a thorough understanding of the Convention's work both in theory and practice.

101. In fulfilment of the Ramsar 25th Anniversary pledge made at Ramsar COP6 (1996), Australia is taking strong initiatives to provide training opportunities in wetland management for the Oceania region. To this end, it has established the "Asia-Pacific Wetland Managers Training Program", an initiative of the Commonwealth Government of Australia that is managed and funded through the National Wetlands Program, and \$800,000 AUS has been committed to the initiative over a three-year period.

102. Despite these various mechanisms, and those provided through the donor community, it is apparent from the National Reports submitted by Parties that training continues to be *ad hoc* in nature – largely because the tools and expertise are not widely available at present to allow training needs analyses to be undertaken.

103. However, even for the developed countries this remains a significant challenge, and few of these can claim to have done such strategic planning in terms of their training needs. Another major weakness is that few countries have a good understanding of the training opportunities which are available either in their own country or elsewhere. A major push is needed to gather comprehensive information on training opportunities – both in-country and externally.

104. A clearing house of such information would be an invaluable resource to underpin the much needed increase in training which is required. Ramsar's *Directory* of training opportunities and the proposed Training and Advisory Service are an excellent and timely response, but Rio+10 needs to see these as demonstrative of a broader need in the area of training and capacity building for sustainable development.

The Ramsar Outreach Program

105. In recognition of the need to encourage Parties to take a more systematic approach to issues of communication, education, public awareness and training, Ramsar COP7 (1999) adopted *The*

Convention's Outreach Programme 1999-2002: Actions to promote communication, education and public awareness to support implementation of the Convention on Wetlands (Ramsar, Iran 1971). Now published as Handbook 6 of the Ramsar Wise Use 'toolkit' (see section 1), these guidelines set out recommended goals and objectives of a national Outreach Programme, identify the key 'actors' to be targeted, and describe a range of tools which Parties can apply, or adapt, to suit their national circumstances.

106. The COP requested all Parties to nominate both a government and a non-government focal point for the implementation of Outreach activities. The intention is for these two focal points to coordinate their efforts, thus helping to form a global 'electronic' network for sharing information, ideas and experiences in the areas of communication, education and public awareness.

107. The Ramsar Convention Web site (www.ramsar.org) constitutes a major communications tool of the Convention. By the end of 2000, there were an average of 1,174 User Sessions on the Ramsar Web site per day, accounting for more than 3,600 page views per day (annualized to 1.34 million pages viewed per year); this represents a four-fold increase in traffic over 1999, which was itself a doubling of traffic over 1998. Nationally-speaking, the hits came from 144 nations, with about 50% from the USA, followed by UK, Canada, and Australia, but also with 89 from Croatia and 68 from the United Arab Emirates, just for example. The average user spends 15 to 19 minutes on the Ramsar site.

108. Through the private sector partnership and sponsorship arrangement with the Danone Group (see section 3.3), the Ramsar secretariat has provided financial support to several developing countries to assist with gaining Internet access and email communications. These are important, if small-scale investments in helping all Parties to take full advantage of the resources available to them through the Ramsar Convention.

4.3 Capacity building in developing countries

109. As indicated in the preceding section under 'Training', there are strong signals that capacity building, while a high priority for most international environment conventions, the multilateral and bilateral donors and national governments, continues to be one of the greatest challenges, if not the greatest, for the implementation of Agenda 21. Few countries seem to have taken a systematic approach to advancing their capacity building, most efforts being *ad hoc* and opportunistic. The same must also be said of the efforts in this area by the Parties to the Ramsar Convention.

110. Training efforts are rarely based on a good understanding of needs, and those who undergo training seem required to give little feedback on the success of the training undergone. "Capacity building" has become a buzz word of the donor sector, but this capacity building tends to be sector-specific and is not in general fostering integrated approaches as sustainable development requires.

Ramsar's capacity building 'tools'

111. As a contribution to the promotion of capacity building, the Ramsar Convention launched its "Small Grants Fund (SGF) for Wetland Conservation and Wise Use" in 1991. Providing small-scale grants (up to 40,000 Swiss francs) to developing and transition States the SGF up to now has funded a total of 132 projects in over 72 countries with funds allocated totaling 4.3 million Swiss francs. While this has made a significant difference in these countries, during this same period 231 eligible projects could not be funded due to lack of resources. The target set by the Convention is to dispense US\$1 million per year, and this occurred in just one of the SGF's ten years of operation. Further details about the highly successful Small Grants Fund are provided in [Information box 16](#) at the end of this section.

112. The Ramsar Convention also operates, through the support of the Government of the United States of America, the "Wetlands for the Future Initiative" designed to support training and capacity

building in Latin America and the Caribbean. Details of this are given in [Information box 17](#) below. As an example of the types of projects supported by this initiative, in December 2000 the Ramsar/SPAW Caribbean Training Workshop was held in Trinidad. With an attendance of over 30 participants from 20 Caribbean nations and territories, the workshop served as an introduction to the Ramsar Convention in the region, a research mission on wetland-related needs in the Caribbean, and an opportunity for some training of local professionals on several wetland management issues.

4.4 Thematic and policy review and recommended ‘course corrections’

113. Ramsar’s contribution to this area of Agenda 21 can be summarized as follows:

- a) a general increase in awareness of the ecosystem services provide by wetlands has occurred;
- b) Ninety-one Parties which have wetlands conservation and sustainable use (wise use) as part of educational curricula;
- c) a large resource of exemplars or models in community education and public awareness raising to draw upon;
- d) Sixty-two Parties which have government-run community outreach programmes, and 63 where NGOs are taking the lead with such activities;
- e) a continuing increase in the number of environment education centers based at wetlands;
- f) adoption of *The Convention’s Outreach Programme 1999-2002: Actions to promote communication, education and public awareness to support implementation of the Convention on Wetlands (Ramsar, Iran 1971)* (Handbook 6 in the Ramsar Wise Use ‘Toolkit’);
- g) a wide range of informative and user-friendly resource materials generated by the Ramsar Bureau (secretariat) to foster and support those generated by Parties and NGOs;
- h) an informative, comprehensive and actively managed Web site for the Convention (<http://www.ramsar.org>) and increasing number of national and NGOs counterparts;
- i) the establishment of a global network within Parties of Focal Points (government and non-government) for wetlands communication, education and public awareness;
- j) limited progress in training for managers in wetland conservation and wise use; 19 Parties that have undertaken needs analyses; 23 that have reviewed training opportunities; 42 that have or are developing training modules, 74 Parties from which nationals have received training in wetland management elsewhere;
- k) the International Courses in Wetland Management and Restoration supported by the Netherlands Government and the recently established Asia-Pacific Wetland Managers Training Program supported by Australia;
- l) the Wetlands for the Future training initiative sponsored by the USA for training wetland managers in Latin America and the Caribbean; and
- m) Ramsar’s Small Grants Fund, which has made significant progress despite being severely under-funded.

Ramsar's Rio+10 challenges

114. Some of the challenges facing Ramsar in this area are:

- a) to see the principles of wise use of wetlands and sustainable development more generally become a central plank of formal and informal education curricula in all countries;
- b) to provide a 'clearing house' for Parties with respect to education and public awareness resources, and to secure the resources for an expert in this field to be based at the secretariat to energize the global network of national focal points for wetland communication, education and public awareness;
- c) to develop the proposed *Ramsar Wetlands Training Advisory Service*, and through it to encourage Parties to take a more systematic and long-term approach to training needs – whether it be for high-level officials, natural resource planners, or members of the major groups;
- d) to see the established training programmes continue in the long-term and encourage the development of further programmes in those regions where they are so urgently needed, particularly Africa;
- e) to secure the US\$1 million per year needed to allow the Ramsar Small Grants Fund to support the large number of eligible projects submitted each year;
- f) to see the USA-sponsored Wetlands for the Future training initiative for the countries of Latin America and Caribbean continue in the long term and to secure the resources to duplicate it in other developing regions and for the countries with economies in transition.

Policy review and recommended 'course corrections' for Rio+10

115. There remains an urgent need for Rio+10 to encourage a range of actions in the education, training and capacity building areas. There has been too little progress with introducing the principles of sustainable development into formal and informal education streams and this warrants very high priority. Part of the solution lies in improved transfer of experiences and information, as there are good working models of sustainable development in all parts of the world. A failure to engage the education sector in Agenda 21 would seem to be limiting progress in this area, and steps need to be taken both nationally and internationally to address this problem.

116. Equally, Ramsar's experience shows that while training is a popular concept, its delivery in many cases does not seem to be based on a sound understanding of needs or existing competencies. Rio+10 is urged to develop a major Agenda 21 training initiative which will bring together the necessary expertise and resources to see these shortcomings addressed. Such a programme could unite existing training and capacity building efforts such as Ramsar's Small Grants Fund, Wetlands for the Future, and the International Wetland Management Course, with counterpart programmes being implemented by a range of international and regional institutions – thus creating a 'one-stop-shop' for training in sustainable development.

117. A major Agenda 21 training programme would also have the advantage of bringing together recommended curriculum material to support national actions to see sustainable development integrated into formal and informal education curricula.

Information box 14 - Tasek Bera wetland education kit

Tasek Bera, a freshwater wetland system in Malaysia, was designated as a Ramsar site on 10 November 1994, and has been the focus of a three-year project to develop and implement an integrated management plan with the active involvement of the local community. One of the main outputs of the project is the Wetland education kit, a teaching tool for use in the classroom and on-site, aimed at instilling awareness about the importance of the site and its natural resources. The District Education Office, a Teachers' Training Institute and teachers from 25 schools in the district were involved in its development. The kit is targeted for use by primary school students (ages 7-12) and contains:

- Set of activity modules & a teacher's guide
- 'Getting to Know the Wetlands' board game
- Video on the flora and fauna of Tasek Bera
- Audio cassette
- Story book

The modules are designed to illustrate the range of values, functions and benefits of the site, in five main categories - Wetland functions, Fish and fishing methods, Recreation and tourism, Biodiversity, and Source of natural products.

The kit is available in English and Malay from:

Wetlands International – Asia Pacific

3A39 (4th Floor), Block A, Lobby C, Kelana Centre Point
No.3, Jalan SS7/19, Kelana Jaya 47301 Petaling Jaya, Selangor, Malaysia
Tel: +603 704 6770; Fax: +603 704 6772
Email: wiap@wiap.nasionet.net

From Ramsar Wise Use Handbook 6 – "The Convention's Outreach Programme 1999-2002: Actions to promote communication, education and public awareness to support implementation of the Convention on Wetlands (Ramsar, Iran 1971)."

Information box 15 - Segismundo - communicating with children in Argentina

Building local awareness among local communities about the importance of biodiversity in the coastal wetland of Rio Grande, Tierra del Fuego, and encouraging their participation in the conservation and wise use of the wetland - this was the dual aim of a Wetlands for the Future grant in 1997.

Administered by Fundación Vida Silvestre, an Argentinian NGO, the project provided training as well as teaching materials for local school teachers. Teachers were supplied with copies of a children's magazine telling the story, in cartoon form, of a bird called Segismundo which flies from the Northern hemisphere to Samborombon Bay, a wetland of international importance in Argentina. The story describes the friends he meets and the places he visits on his migratory journey along the coastline of the Americas.

Through this short story, children of all ages are made aware of the diversity of habitats and species that are found along the migratory route, as well as the feeding and roosting needs of the birds so that they can undertake the journey every year. At the end of the story a user-friendly guide is included to identify common migratory species.

The 37-page cartoon magazine was prepared by Fundación Vida Silvestre with the support of Pennies for the Earth and the World Wide Fund for Nature (WWF), and the cost of duplication and distribution in Tierra del Fuego was covered by a Wetlands for the Future scheme administered by the Ramsar Convention Bureau.

For further information contact:
 Fundación Vida Silvestre Argentina
 Defensa 245, Buenos Aires 1065, Argentina
 Tel: +54 11 4343 3778
 Fax: +54 11 4331 3631

From Ramsar Wise Use Handbook 6 – "The Convention's Outreach Programme 1999-2002: Actions to promote communication, education and public awareness to support implementation of the Convention on Wetlands (Ramsar, Iran 1971)."

Information box 16 - The Small Grants Fund of the Ramsar Convention

- "filling the gap"

Established in 1990, the Small Grants Fund (SGF) provides financial support to developing countries, and countries with their economies in transition, to further the aims of wetland conservation and wise use promoted by the Convention. Providing up to 40,000 Swiss Francs to support suitable projects, it "fills the gap" for many countries requiring assistance for small-scale or emergency projects which the larger funding programmes are unlikely to support. While SGF funds do not replace the need for most countries to have access to much more substantial levels of funding, they are highly cost-effective and are intended to be catalytic in their effects, helping countries to complete the preparatory work which can lead to greater access to major project funding from bilateral and multilateral donor agencies.

Funds have been used to support a wide range of activities, including site restoration, training in wetland management, awareness-raising, management planning, policy development and inventory. Although applications have to be endorsed by the Administrative Authority of the Convention in each country, the projects can be designed and implemented by NGOs, other government agencies, research institutions, etc. A few specific examples include:

- Improving visitor facilities, developing the ecotourism potential, and increasing public awareness of marshland values in the Bellanwila-Attidiya Sanctuary on the outskirts of Colombo, Sri Lanka, designed and implemented by the IUCN Sri Lanka Country Office, an intergovernmental organization with state and NGO members.
- Development of a management plan to rehabilitate Lake Dziani Boudouni in the Comoros which involves the active participation of local communities and the private sector as well as local authorities, designed and implemented by the Direction générale de l'environnement, a government authority.
- Establishing a transboundary Ramsar wetland area in the Upper Tisza region, an area of mountains and lowlands on the borders of Hungary, Romania, Slovakia and the Ukraine, designed and implemented by the Tisza Klub for Environment and Nature, an NGO.

A recent critical review* of the Fund's activities over the period 1991-1998 was presented to Ramsar COP7 (1999). On the positive side, the Fund had provided a total of

3.8 million Swiss Francs to 113 projects from 72 countries over the period reviewed. On the negative side, 122 suitable projects over the same period were not supported because of lack of funds. Resolution VII.5** on the Small Grants Fund, adopted at COP7, expressed concern at the shortfall in funding and reiterated the conviction, expressed in previous resolutions, that the level of resources available to the SGF should be increased to at least US\$ 1 million annually. The Fund relies exclusively upon the voluntary contributions from government agencies and both national and international NGOs.

*Full text of this review is available is available from the Ramsar Convention Bureau or through its Web site at http://ramsar.org/key_sgf_evaluation.htm.

** Resolution VII.5 Critical evaluation of the Ramsar Small Grants Fund for wetlands conservation and wise use (SGF) and its future operations is available from the Ramsar Convention Bureau or through its Web site at http://ramsar.org/key_res_vii.05e.htm.

Information box 17 - Wetlands for the Future

An initiative to promote training in the management of wetlands in Latin America and the Caribbean

An agreement between the Ramsar Convention and the government of the United States of America (through the State Department and the Fish and Wildlife Service) established this initiative in 1995 to sponsor small-scale wetland training projects in Latin America and the Caribbean.

Since 1995, WFF has funded approximately 120 projects in over 18 countries for a total of US\$1,250,000. Funding has ranged from several hundred dollars to a maximum of US\$20,000 and, to obtain funds, there must be counterpart funding representing at least 50 per cent of the total cost of the project.

With the broad aim of strengthening the capacity of institutions and individuals to promote the conservation and wise use of wetlands in the region, the initiative has supported projects that have been designed and implemented by NGOs, government agencies, universities, documentation centres and individuals associated with these institutions. Some examples include:

- Internet on line for the High Andes Wetlands Program in Argentina: the installation of a radio link and computer facilities to provide Internet services to the Programa de Humedales Altoandinos at the Universidad Nacional de Salta.
- Increasing the support and involvement of local people in conserving and sustainably using Crooked Tree Wildlife Sanctuary in Belize: a project designed and implemented by the Belize Audubon Society, which employed conflict management techniques to promote the involvement of the local community in the management and conservation of the Sanctuary.
- Using a simple, low-cost computer mapping system in the Brazilian Pantanal: a training workshop for government agency and university personnel on the Geographical Information System known as CAMRIS; a workshop run by Fundação Terceiro Milênio Pantanal.
- Management of information on Caribbean Islands: improving the availability and distribution of wetland documentation as well as information exchange, a project designed and implemented by the Caribbean Natural Resources Institute (CANARI).

Recommendation 7.4, adopted at COP7, urged Contracting Parties and other organizations concerned about wetland conservation and sustainable use to initiate and support programmes similar to the Wetlands for the Future initiative in other parts of the world, including in the African region and particularly in the francophone countries.

More detailed information on the WFF Initiative is available from the brochure produced by the Ramsar Convention Bureau (see opposite) or through the Bureau's Web site at: http://ramsar.org/key_wff_index.htm.

Full text of Recommendation 7.4 The Wetlands for the Future Initiative is available from the Bureau or through its Web site at: http://ramsar.org/key_rec_7.04e.htm.

Section 5. Oceans and seas, living marine resources and coastal zone management

5.1 Introduction

118. Under the Ramsar definition of 'wetland' a range of types (see table in this section) are recognized within the coastal zone, including estuaries, intertidal flats and marshes, mangrove swamps, tidal lagoons, coastal freshwater lagoons, seagrass beds and coral reef systems. This defines the mandate of the Ramsar Convention under Chapter 17 of Agenda 21. Of the seven programme areas contained in Chapter 17, the Ramsar Convention has contributed significantly in terms of the following three:

- a) Integrated management and sustainable development of coastal areas, including exclusive economic zones;
- b) Marine environmental protection
- d) Sustainable use and conservation of marine living resources under national jurisdiction;

119. It has also made some, and in future will make increasingly greater, contributions in terms of the following programme areas:

- e) Addressing critical uncertainties for the management of the marine environment and climate change;
- f) Strengthening international, including regional, cooperation and coordination;
- g) Sustainable development of small islands.

These achievements are briefly summarized in the following sections.

5.2 Integrated management and sustainable development of coastal areas, including exclusive economic zones

120. Consistent with its Wise Use principle and guidelines, the Ramsar Convention has been a long-term advocate of integrated management and sustainable development of coastal areas. Most are predominantly wetland ecosystems, as defined by the Convention, and the Parties are expected to apply the Wise Use principle to all such areas (Article 3.1 of the Convention). In addition, among the 1050 sites that the 123 Parties to the Convention have designated as Wetlands of International Importance, 498 (47%) contain coastal wetland types.

121. The Convention has recognized that some coastal wetland types are under-represented in the List of Wetlands of International Importance and Parties have been urged to address this 'gap' through the Strategic Framework adopted for the List at Ramsar COP7 (1999) (see section 7.3). Perhaps most

importantly, Ramsar Parties are expected to develop integrated management plans for all of their Ramsar sites. At the time of Ramsar COP7, National Reports indicated that such plans were in place or being developed for 416 (44%) of sites (at the time).

Table 3 - Ramsar's Wetland Types

<u>Marine/Coastal Wetlands</u>	<u>Inland Wetlands</u>	
A – Permanent shallow marine waters in most cases less than six metres deep at low tide; includes sea bays and straits.	L -- Permanent inland deltas.	Xf – Freshwater, tree-dominated wetlands; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils.
B -- Marine subtidal aquatic beds; includes kelp beds, sea-grass beds, tropical marine meadows.	M – Permanent rivers/streams/creeks; includes waterfalls.	Xp -- Forested peatlands; peatswamp forests.
C -- Coral reefs.	N -- Seasonal/intermittent/irregular rivers/streams/creeks.	Y -- Freshwater springs; oases.
D -- Rocky marine shores; includes rocky offshore islands, sea cliffs.	O -- Permanent freshwater lakes (over 8 ha); includes large oxbow lakes.	Zg – Geothermal wetlands
E -- Sand, shingle or pebble shores; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.	P -- Seasonal/intermittent freshwater lakes (over 8 ha); includes floodplain lakes.	Zk(b) – Karst and other subterranean hydrological systems, inland
F -- Estuarine waters; permanent water of estuaries and estuarine systems of deltas.	Q – Permanent saline/brackish/alkaline lakes.	<u>Human-made wetlands</u>
G -- Intertidal mud, sand or salt flats.	R -- Seasonal/intermittent saline/brackish/alkaline lakes and flats.	1 – Aquaculture (e.g., fish/shrimp) ponds
H -- Intertidal marshes; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.	Sp – Permanent saline/brackish/alkaline marshes/pools.	2 -- Ponds; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).
I -- Intertidal forested	Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.	3 -- Irrigated land; includes irrigation channels and rice fields.
	Tp -- Permanent freshwater marshes/pools; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation waterlogged for at least most of the growing season.	4 -- Seasonally flooded agricultural land (including intensively managed or grazed wet meadow or pasture).
	Ts -- Seasonal/intermittent freshwater marshes/pools on inorganic soils; includes sloughs, potholes, seasonally	5 -- Salt exploitation sites; salt pans, salines, etc.
		6 -- Water storage areas; reservoirs/barrages/dams/impoundments (generally over 8 ha).
		7 – Excavations; gravel/brick/clay pits; borrow pits, mining pools.
		8 – Wastewater treatment areas; sewage farms, settling ponds, oxidation basins, etc.
		9 -- Canals and drainage channels, ditches.

wetlands; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.	flooded meadows, sedge marshes.	Zk(c) – Karst and other subterranean hydrological systems, human-made
J -- Coastal brackish/saline lagoons; brackish to saline lagoons with at least one relatively narrow connection to the sea.	U -- Non-forested peatlands; includes shrub or open bogs, swamps, fens.	
K -- Coastal freshwater lagoons; includes freshwater delta lagoons.	Va -- Alpine wetlands; includes alpine meadows, temporary waters from snowmelt.	
Zk(a) – Karst and other subterranean hydrological systems, marine/coastal	Vt -- Tundra wetlands; includes tundra pools, temporary waters from snowmelt.	
	W -- Shrub-dominated wetlands; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.	

Note : "floodplain" is a broad term used to refer to one or more wetland types, which may include examples from the R, Ss, Ts, W, Xf, Xp, or other wetland types. Some examples of floodplain wetlands are seasonally inundated grassland (including natural wet meadows), shrublands, woodlands and forests. Floodplain wetlands are not listed as a specific wetland type herein.

122. While the precise number of Ramsar sites in the coastal zone with management plans is not known, it is encouraging that such progress is being made to put in place plans designed for the long-term sustainable use of these flagship sites. COP7 'raised the bar' on this aspect of Ramsar work by urging Parties to achieve management plans for at least 75% of their Ramsar sites by COP8 in 2002.

123. To assist with further additions of coastal zone wetlands to the Ramsar List, the Convention's Scientific and Technical Review Panel (STRP) is at present developing specific guidance for Parties in terms of future designation of mangrove, coral reef, sea grass and soft-bottomed community wetland types. The Ramsar STRP is also developing guidelines for the integrated management of wetlands within the coastal zone. All of these 'tools' will be considered at Ramsar 8th Conference of Parties in 2002.

124. One good example is Colombia. On 5 December 2000 the Consejo Nacional Ambiental approved the "Política Nacional Ambiental para el Desarrollo Sostenible del los Espacios Oceánicos y Zonas Costeras e Insulares de Colombia" (National Environmental Policy for the Sustainable Development of the Ocean and Coastal Areas and Islands of Colombia). The objective of the Policy is to promote integrated coastal zone management, improve governance and linkages between the different stakeholders, promote conservation and restoration of the goods and services provided by the ecosystems, generate knowledge and information to assist decision-makers in the strategic planning processes, promote the involvement of local communities, and apply the ecosystem approach of the Convention on Biological Diversity.

125. Another illustration that is especially notable is the case of the St Lucia Ramsar site in South Africa. This case is described in [Information box 18](#) at the end of this section.

5.3 Marine environmental protection

126. Within this programme area, great emphasis is given to land-based marine pollution and coastal zone erosion processes. In both cases, wetlands are a key part of the response (see [Information box 19](#) at the end of this section). The loss of wetland areas within river basins decreases water quality and increases sediment and pollutant loads discharged into the sea. The loss of coastal zone wetlands, especially within estuaries, further exacerbates these problems, while the loss of coastal fringing wetlands leads to direct shoreline erosion. A fundamental part of protecting marine environments therefore has to be integrated river basin management (where these discharge into the sea), and the protection of coastal ecosystems.

127. As indicated in the preceding section, the Ramsar Convention is taking a strong role in promoting the protection and sustainable development of coastal zone wetlands. It is also very active in promoting integrated river basin management (see section 6). Together these actions are also making a significant contribution to the protection of marine environments.

5.4 Sustainable use and conservation of marine living resources under national jurisdiction

128. This programme area draws attention to the importance of coastal zone fisheries and notes that "marine living resources provide an important source of protein in many countries and their use is often of major importance to local communities and indigenous people. Such resources provide food and livelihoods to millions of people and, if sustainably utilized, offer increased potential to meet nutritional and social needs, particularly in developing countries" (Paragraph 17.70).

129. In the Ramsar context, paragraph 17.85 in this programme area is especially relevant: "States should identify marine ecosystems exhibiting high levels of biodiversity and productivity and other critical habitat areas and should provide necessary limitations on use in these areas, through, inter alia, designation of protected areas. Priority should be accorded, as appropriate, to:

- a) Coral reef ecosystems;
- b) Estuaries;
- c) Temperate and tropical wetlands, including mangroves;
- d) Seagrass beds
- e) Other spawning and nursery areas."

130. Reference to Table 3 with the Ramsar's Wetland Types shows that a), b), c) and d) above are classified as wetlands under the Ramsar Convention. As indicated above, there are today 498 sites in the Ramsar List of Wetlands of International Importance (out of 1050) which include coastal wetland types. The wise use management of these sites, as required under the Convention, is making a major contribution to Agenda 21 in the coastal zone.

131. Noting the importance of wetlands as spawning and nursery areas for fish, at its 6th Conference of Parties in 1996 the Ramsar Convention adopted criteria to establish Wetlands of International Importance based on their fish habitat values. These criteria are shown in [Information box 20](#) below. Today there are 146 Ramsar sites (14%) in 52 Parties which have been designated on the basis of these criteria. Of these, 80 contain coastal wetland types.

5.5 Addressing critical uncertainties for the management of the marine environment and climate change

132. In section 8 the evolving partnership between the United Nations Framework Convention on Climate Change and the Ramsar Convention is described. The basis of this collaboration is the role of wetlands - peatlands especially - in the management of greenhouse gases (particularly carbon dioxide) and in physically buffering climate change impacts, especially in the coastal zone. For more on this

aspect of Ramsar's work see section 8.

5.6 Strengthening international, including regional, cooperation and coordination

133. Apart from its overall mandate in the area of international cooperation (see section 8.5), the Ramsar Convention can boast two major regional initiatives which are resulting in stronger regional cooperation and coordination as it relates to the coastal zone.

134. One of these is the Mediterranean Wetlands Initiative (MedWet) which is described in [Information box 37](#) in Section 8. The other is Ramsar's Memoranda of Cooperation with the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (the Cartagena Convention) and the Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention).

135. The current work plan of the Ramsar Bureau (secretariat) indicates that similar forms of collaboration are to be pursued with the South Pacific Regional Environment Program.

5.7 Sustainable development of small islands

136. The Ramsar Convention has taken a range of actions to promote its work and encourage the small island developing states (SIDS) to join the Convention. Regrettably, relatively few have taken this action and their recruitment remains a priority for the Convention. It is apparent that one impediment to these countries joining the Ramsar Convention has been the unclear relationship (in both a policy and programmatic sense) between the Ramsar Convention and CBD and UNFCCC; both of which have high levels of SIDS participation. It is expected that with the strengthening partnership emerging between the Ramsar Convention and these two UNCED-related Conventions (see sections 8.2 and 8.3), the SIDS will come to realize the advantages, opportunities and benefits to be gained from becoming signatories of the Ramsar Convention as well.

137. In December 2000, as part of the Wetlands for the Future Initiative (see section 4.3), a Ramsar/SPAW Caribbean Training Workshop was held in Trinidad. It was attended by over 30 participants from 20 Caribbean nations and territories. The workshop served as an introduction to the Ramsar Convention in the region, a research mission on wetland-related needs in the Caribbean, and an opportunity for some training of local professionals on several wetland management issues.

138. Other actions taken or proposed by Ramsar which it is hoped will encourage the SIDS to join the Ramsar Convention include:

a. the Memorandum of Cooperation with the secretariat of the Convention for the Protection and Development of the Marine Environment of the Wide Caribbean Region (the Cartagena Convention);

b. the proposed development of a formal agreement of cooperation with the South Pacific Regional Environment Program, and

c. the current review of the Barbados Programme of Action for the Sustainable Development of Small Island States being carried out by Ramsar's intersessional governing body, the Standing Committee, which will result in recommendations to be tabled at Ramsar COP8 for priority actions by the Convention.

5.8 Thematic and policy review and recommended 'course corrections'

139. Ramsar's contribution to Agenda 21 in this area can be summarized as follows:

- a) encouraging signs that wetlands are increasingly being managed as integrated components of the coastal zone, and recognized for their importance as protecting society from storm surges and supporting fisheries;
- b) 498 Wetlands of International Importance (Ramsar sites) out of 1050 which include coastal zone wetland types;
- c) 416 Ramsar sites (44%) where management plans to promote conservation and wise use are in place or being developed, including sites in the coastal zone;
- d) Ramsar's STRP is developing guidelines for integrating wetlands into coastal zone management to be adopted at Ramsar's 8th Conference of Parties in 2002;
- e) adoption of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Handbook 7 in the Ramsar Wise Use "Toolkit"), and the supplementary guidance being developed to assist Parties in identifying their internationally important coral reefs, mangrove systems, sea grass beds and soft-bottomed communities for designation as Ramsar sites;
- f) publication of *Frameworks for managing Wetlands of International Importance and other wetlands* (Handbook 7 in the Ramsar Wise Use "Toolkit") providing guidance on management planning, site monitoring and risk assessment;
- g) Ramsar's recognition of the importance of wetlands as fish nurseries, the development of Ramsar site criteria for this function, and the subsequent designation (since 1996) of 146 sites on the basis of importance for fish;
- h) Memoranda of Cooperation with the Cartagena and Barcelona Conventions, and the proposal to pursue a similar Memorandum with the South Pacific Regional Environment Programme.

Ramsar's Rio+10 challenges

140. Some of the challenges facing Ramsar in this area are:

- a) to continue to raise awareness about the importance of wetlands to coastal and marine ecosystems – from the perspectives of protection from storm surges, ecotourism, fisheries, etc.;
- b) to complete, and see adopted and applied, Ramsar's guidelines for integrating wetlands into coastal zone management;
- c) to see management planning for coastal zone (and all) Ramsar sites accelerated, with plans to be developed through close consultation with major groups, and promote sustainable development of our highly populated coastal zones;
- d) to see wetlands within the coastal zone and inland water ecosystems rehabilitated or restored as a deliberate tactic for returning ecosystem services;
- e) to have Parties to the Convention applying the *Strategic Framework for the development of the Ramsar List of Wetlands of International Importance*, resulting in increasing numbers of under-represented wetland types, and those wetlands most important for sustaining life, being designated under the Convention and managed for sustainability;

f) to see Parties systematically applying Ramsar's fish criteria for Wetlands of International Importance, as a strategy for protecting fisheries resources vital as food and protein sources for human populations;

g) to see more small island developing States join the Ramsar Convention and use it as the important tool it can be for them in addressing biodiversity conservation, climate change and sustainable development imperatives; and

h) to apply effectively the existing memoranda of cooperation with the regional seas conventions, and adopt additional ones.

Policy review and recommended 'course corrections' for Rio+10

141. To date the Ramsar Convention has not been sufficiently recognized by world leaders as an important weapon in addressing the mounting pressures being experienced in the coastal and marine environments. As outlined in this section of Ramsar's Agenda 21 Report, wetlands are a vital part of maintaining healthy and productive coastal and marine ecosystems.

142. Economic development for the communities of the coastal zone can also be strongly dependent on retaining their wetland assets, in terms of both fisheries production and eco-tourism potential.

143. For the people of the small island developing states, whose lifestyles are in most cases reliant on the natural resources of the sea, protecting coastal wetlands is an absolute priority. For these low-lying countries, retaining and restoring wetlands is also an important adaptive management strategy against the impacts of sea level rise.

144. Given these considerations, the Ramsar Convention urges Rio+10 to recognize the importance of States protecting and using their coastal wetland resources wisely. Parties should be encouraged to designate their key coastal zone wetland sites as Wetlands of International Importance under the Ramsar Convention as a 'tool' to assist sustainable development aspirations.

145. As advocated by the Ramsar Convention, the listed sites can become part of a global network of 'demonstration' sites for sustainable development (see section 7.3), while at the same time providing a focus for national actions to implement Agenda 21 in very tangible and demonstrable ways.

146. Allied to this is the opportunity for States to use this same mechanism to establish national Ramsar site networks for protecting vital fish habitats. As population pressure mounts around the world, fish resources are being more and more stressed. By taking the proactive step now of protecting vital fish nursery areas as Ramsar sites, Parties are gaining some level of food security for the future.

Information box 18 - The St Lucia System, South Africa

Designated a Wetland of International Importance in 1986 and a World Heritage site in 1999, St. Lucia represents one of the most important natural environments in Southern Africa. This Ramsar site is part of the largest estuarine system in Africa and has an area of 155,500 hectares. A 12-kilometre winding channel, known as 'The Narrows', connects the main portion of the lake system with the sea, and tidal exchange takes place through this channel. Evaporation is high in this region and freshwater input from the five rivers feeding the system is vital to prevent salinity rising to levels lethal to aquatic life.

In 1989, the South African Government informed the Ramsar Convention Bureau that the ecological character of the St. Lucia System Ramsar site was likely to change should a mining proposal under consideration at the time be allowed to proceed. The site was added in 1990 to the Montreux Record of Ramsar sites where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference, and the following year a Ramsar Advisory Mission was requested by the South African Government. The report of the mission, following an intensive investigation, advised the Government against even limited approval of the proposed project and made a number of suggestions for 'wise use' activities at the site in order to support the local people. In March 1996, it was announced that, in accordance with the Ramsar recommendations, all mining would be banned and a package of economic initiatives, including ecotourism, would be introduced to provide for the inhabitants of the area.

In announcing the decision, the Minister for Environmental Affairs and Tourism stated "It gives me great pleasure to announce that the St Lucia System is to be removed from the Montreux Record on which it was placed in 1990. The threat to the system, namely the proposed dredge mining of the coastal dunes . . . has been removed. The Cabinet further decided in favour of an integrated development and land-use planning strategy for the entire region. This is in concurrence with the recommendations of the Ramsar Monitoring Mission which visited South Africa during 1992. I must acknowledge the support given to South Africa by the Ramsar community".

[Information taken from a paper prepared for Ramsar COP6 by Allan E. F. Heydorn, available from the Ramsar Convention Bureau's Web Site at http://ramsar.org/archives_heydorn.htm.]

From Ramsar Wise Use 'Toolbox', Handbook 8, "Frameworks for managing Wetlands of International Importance and other wetlands"

Information box 19 – Wetlands – Shoreline stabilisation & storm protection:

- Coastal wetlands play a critical role in many parts of the world in protecting the land from storm surges and other weather events; they reduce wind, wave and current action, and coastal vegetation helps to hold sediment in place.
- Globally, an estimated 46 million people per year are currently at risk from storm surges.
- The value of intact mangrove swamps in Malaysia for storm protection and flood control alone has been valued at US\$ 300,000 per kilometre – the cost of replacing them with rock walls.
- Government sponsored reforestation of mangroves in the Philippines began in the 1980s with a World Bank funded US\$ 3.5 million project. Reforestation is a costly process: in Thailand replanting costs amounted to US\$ 946 per hectare compared to only US\$ 189 per hectare for protecting existing mangroves.
- Loss of vegetation along river banks in eastern England was costed at US\$ 425 per metre of bank – the cost of maintaining artificial bank reinforcement to prevent erosion.
- The value of 1 kilometre of coral reef ranged from US\$ 137,000 to almost US\$ 1.2 million over a 25-year period, based on the economic value of storm protection, fishing and tourism.

Information box 20 - Ramsar's Criteria for Wetlands of International Importance

Specific criteria based on fish

Criterion 7: A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.

Criterion 8: A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.

Section 6. Freshwater resources

6.1 Introduction

147. Given the global recognition that the world faces, or is already experiencing, a freshwater crisis, Chapter 18 of Agenda 21 dealing with freshwater, warrants very special attention at Rio+10. The Second World Water Forum and Ministerial Conference held in The Hague in March 2000 issued a declaration which begins "Water is vital for life and health of people and ecosystems and a basic requirement for the development of countries." The assembled Ministers and Heads of Delegations went on to say that addressing the global water problems will mean that we have to ensure "that freshwater, coastal and related ecosystems are protected and improved."

148. Among the main challenges identified by the Second World Water Forum are the following, which are especially relevant to the role that the Ramsar Convention can and is playing in the promotion of integrated water resource management:

- a. "Protecting ecosystems: to ensure the integrity of ecosystems through sustainable water resources management.
- b. Sharing water resources: to promote peaceful co-operation and develop synergies between different uses of water at all levels, whenever possible, within and, in the case of boundary and transboundary water resources, between states concerned, through sustainable river basin management and other appropriate approaches.
- c. Managing risks: to provide security from floods, droughts, pollution and other water-related hazards.
- d. Valuing water: to manage water in a way that reflects its economic, social, environmental and cultural values for all its uses, and to move towards pricing water services to reflect the cost of their provision. This approach should take account of the need for equity and the basic needs of the poor and the vulnerable.
- e. Governing water wisely: to ensure good governance, so that the involvement of the public and the interests of all stakeholders are included in the management of water resources."

149. The important roles played by wetlands in maintaining 'healthy' river systems and waterways are now well understood and are reflected in the Ministerial Statement from the Second World Water

Forum.

150. Chapter 18 of Agenda 21, and the recommendations of the 6th Session of the Commission of Sustainable Development, give clear warnings about the need to protect and restore freshwater ecosystems as a key element of integrated water resource management.

151. Ramsar actively participated in the process leading to the 6th Session of the Commission on Sustainable Development in April 1998, when "Strategic approaches to freshwater management" was one of the two main issues for analysis. As a result of its deliberations, the Commission urged governments, inter alia, to address the conservation and sustainable use of wetlands as one of the "numerous gaps in the path towards integrated water resources development, management, protection and use" (paragraph 10 of the decision on this matter), and encouraged governments, while formulating integrated water resources management policies and programmes, to implement relevant conventions in force, including the Convention on Wetlands (paragraph 14 of the same decision).

152. The Ramsar Convention gains but a passing mention in Chapter 18 of Agenda 21 (Paragraph 18.39, (d)), and in 1992 this was probably a fair reflection of its profile and involvement in advancing integrated water resource management. A decade later, the situation is very different and the Ramsar Convention is now an active player and one that is taking a more and more active role in implementing the freshwater programme of Agenda 21. Some examples of this are perhaps the best way to illustrate this point.

6.2 Guidelines for integrating wetland conservation and wise use into river basin management

153. At Ramsar COP7 (1999) the Parties adopted *Guidelines for integrating wetland conservation and wise use into river basin management*. Based on case studies and experiences, these Guidelines provide a framework for Parties to apply integrated river basin management, which includes the conservation and wise use of associated wetlands. The Guidelines consider institutional frameworks, assessment and impact procedures, environmental water allocations and transboundary cooperation.

154. The River Basin Guidelines have been published as Handbook 4 in the Ramsar's Wise Use 'toolkit' released in January 2000 (see section 1). As a follow-up initiative, and as an element of the Joint Work Plan between CBD and Ramsar, both secretariats are supporting the development of the so-called River Basin Initiative which aims to provide a global networking and information service for applying the Guidelines.

6.3 The expanding network of 'freshwater' Wetlands of International Importance (Ramsar sites)

155. Of the 1050 Ramsar sites which exist today in 123 countries, 857 (82%) contain freshwater wetland types (see section 5) as defined under the Ramsar Convention. The 'protection' (meaning conservation and wise use) of these sites is providing an important contribution to the maintenance of 'healthy' and sustainable river basins, not to mention their importance in terms of flood and drought protection, water purification, food production and local economies, through ecotourism and alike. As the number of Parties to the Ramsar Convention increases, so to will the 'network' of Ramsar sites that are contributing to our efforts to sustain stressed waterways.

6.4 Transboundary wetlands and river basins

156. Article 5 of the Ramsar Convention places a clear obligation on the Parties to cooperate with respect to the management of transboundary wetlands and river basins: "The Contracting Parties shall consult each other about the Convention and especially in the case of wetlands extending over the territories of more than one Contracting Party or where the water system is shared by Contracting Parties". The guidelines developed pursuant to this Article (see section 8.5) therefore, and not

surprisingly, place great emphasis on neighbouring Parties cooperating in this endeavour.

157. At the time of Ramsar COP7 (1999), the World Conservation Monitoring Centre (WCMC) reported that of 955 Ramsar sites considered, 92 (9.6%) may be subject to direct impacts from adjoining States and could therefore benefit from cooperative management approaches. WCMC also examined situations where Ramsar sites were found within river basins that cross international boundaries and could potentially therefore suffer impacts from these adjoining States. They found that of 955 Ramsar sites, 267 (28%) were located in so-called 'international' river basins.

158. As part of its work under the banner of international cooperation, the Ramsar Convention has escalated its efforts to promote transboundary cooperation. Among some notable cases are the Dauria International Protected Area shared between Mongolia, the People's Republic of China, and the Russian Federation and Lake Prespa shared by Albania, Greece, and the Former Yugoslav Republic of Macedonia (see [Information box 24](#) at the end of this section).

159. The Ramsar secretariat is also actively supporting a number of multi-State river basin initiatives including the OKACOM for the Okavango River Basin shared by Angola, Namibia and Botswana and the management of Lake Chad among Chad, Niger, Nigeria, Cameroon and the Central Africa Republic (see section 8.4).

160. In recognition of the Ramsar Convention's direct interest in river basin management, it was given Observer Status to the Danube River Protection Convention in November 2000. As stated in the Agreement relating to this Observer status, this is acknowledgement of the "role of wetlands in water management, including flood control, nutrient retention and groundwater replenishment, as well as the need to minimize impacts of land use and development projects on wetland's functions and their biodiversity."

6.5 Rehabilitation and restoration of wetlands

161. As quoted in the introduction to this section, the assembled Ministers and Heads of Delegations at the Second World Water Forum stated in their declaration "that freshwater, coastal and related ecosystems are protected *and improved*" [emphasis added]. The use of the term "and improved" is very significant, as it recognizes that we now have available to us the technology to rehabilitate or restore ecosystems – and this especially applies to wetland ecosystems.

162. Noting that globally it is estimated that 50% of wetland ecosystems have been converted to alternative uses, the 'repair' of a significant percentage to these would provide a major boost to the aspirations of integrated and sustainable water resource use. Many countries have taken the initiative in this regard and have major wetland rehabilitation and restoration efforts under way, in many cases being led by local people. Examples include Australia, Denmark, Egypt, India, Netherlands, Peru, South Africa and the USA. In the latter case the USA's Clean Water Action Plan actually commits the government to achieving a net gain of 100,000 hectares of wetlands per year by the year 2005.

163. At Ramsar COP7 (1999), 76 Parties reported that wetland areas were being restored or repaired in their country. With the recognition of the vital ecosystem services provided by wetlands, the tide has now turning in a number of countries and the new agenda is to reinstate ("reclaim") areas that were once wetlands, or to rehabilitate degraded areas – this being done as part of ecosystem or river basin-level approaches to water management and biodiversity conservation.

164. In [Information box 25](#) at the end of this section, more details are provided on this important programme area of the Ramsar Convention, which recognizes that the technology now exists to return former wetland areas back to near-natural state, and thus yield the benefits in terms of their functions and services. Rio+10 should adopt as one of its priorities for the future the restoration of vital ecosystem such as wetlands.

6.6 Valuing wetlands as part of freshwater 'infrastructure'

165. The Hague Ministerial Forum reinforced the view among experts and water resource practitioners that wetland ecosystems are an intrinsic part of the natural water supply 'infrastructure' provided by rivers and through groundwater. As such, their protection, and where necessary restoration, should be factored into all considerations of valuing water resources and related decision-making. The Ramsar Convention has contributed to furthering global understanding and awareness in this area through the publication *Economic Valuation of Wetlands* and its ongoing work in the area of incentive measures and impact assessment.

6.7 Guidelines for 'environmental' water allocations

166. Following from Ramsar's adoption of *Guidelines for integrating wetland conservation and wise use into river basin management*, and recognizing the vital importance of wetlands within integrated water resource management, the Convention's STRP is at present reviewing global experiences and science in the field of determining water allocations to maintain wetland functions. They will bring forward their expert views, with accompanying guidance for Parties, at Ramsar's 8th Conference of Parties in 2002 in Spain.

6.8 Thematic and policy review and recommended 'course corrections'

167. Ramsar's contribution to this area of Agenda 21 can be summarized as follows:

- a) increasing signs that wetlands are being managed as integrated components of freshwater 'infrastructure' and recognized for their importance as protecting society from floods, for providing food and water and helping to alleviate poverty;
- b) adoption of *Guidelines for integrating wetland conservation and wise use into river basin management* (Handbook 4 in the Ramsar Wise Use 'Toolkit');
- c) an expanding network of Ramsar sites - 857 Wetlands of International Importance (Ramsar sites) out of 1050 which include inland water wetland types;
- d) 416 Ramsar sites (44%) where management plans to promote conservation and wise use are in place or being developed;
- e) publication of *Frameworks for managing Wetlands of International Importance and other wetlands* (Handbook 7 in the Ramsar Wise Use 'Toolkit') providing guidance on management planning, site monitoring and risk assessment;
- f) publication of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Handbook 7 in the Ramsar Wise Use 'Toolkit'), and the supplementary guidance being developed to assist Parties in identifying their internationally important peatlands and wet grasslands;
- g) an increasing number of instances where neighbouring Parties are cooperating in the management of shared wetlands or river basins – in accordance with Article 5 of the Ramsar Convention relating to international cooperation (see section 8.5);
- h) growth in wetland restoration and rehabilitation, as a 'tool' for improved water management principally, with at least 76% of Parties supporting such activities;
- i) thirty-four percent of Parties that have in some way acted to see economic valuation of wetlands introduced into decision-making and planning for natural resource

management, and notably with respect to water management; and

j) Ramsar STRP's development of guidance relating to 'environmental' water allocations to sustain wetland functions and services.

168. Some of the challenges facing Ramsar in this area include:

a) to continue to raise awareness about the importance of wetlands to the maintenance of 'healthy' and productive waterways and groundwater resources;

b) to complete, and see adopted and applied, Ramsar's guidelines for the allocations of water for maintaining the ecological functioning of wetlands;

c) to see management planning for freshwater (and all) Ramsar sites accelerated, for these plans to be developed through close consultation with major groups, and promote sustainable development of our increasingly stressed rivers;

d) to see wetlands within the inland water and coastal zone ecosystems rehabilitated or restored as a deliberate tactic for returning ecosystem services;

e) to see Parties to the Convention applying the *Strategic Framework for the development of the Ramsar List of Wetlands of International Importance*, resulting in increasing numbers of under-represented wetland types, and those wetlands most important for sustaining life, being designated under the Convention and managed for sustainability;

f) to see Parties systematically applying Ramsar's fish criteria for the identification of Wetlands of International Importance, as a strategy for protecting fisheries resources vital as food and protein sources for human populations;

g) to develop the proposed *River Basin Initiative* in partnership with Convention on Biological Diversity, and through it to achieve increased integration of wetlands into freshwater management;

h) to promote the Ramsar Convention's use increasingly as an instrument for developing cooperative management arrangements for States that share wetlands and water resources; and

i) to continue to promote full and true accounting of the values, services and benefits of wetlands in impact assessment and natural resource management, particularly for freshwater and groundwater management.

Policy review and recommended 'course corrections' for Rio+10

169. The focus on the freshwater crisis makes this an especially important area for the Rio+10 deliberations and the 2002 World Summit will have the benefit of the considerations and conclusions from the Second World Forum in The Hague to guide its discussions. Importantly, at that forum the assembled Heads of Government, Ministers and senior officials recognized that a part of addressing the world's water problems is to ensure "that freshwater, coastal and related ecosystems are protected and improved".

170. To date the Ramsar Convention has not been fully recognized by these same world leaders as a 'tool' for helping to combat the water shortage and water quality problems now being experienced around the globe. As outlined in this section of Ramsar's Agenda 21 Report, wetlands are a vital part of maintaining 'healthy' and productive waterways – an integral part of our natural freshwater supply

'infrastructure'. For retaining and protecting wetlands, society gets as a bonus some help in times of flood, a range of biodiversity products, notably fish, and a range of social, economic and environmental benefits.

171. It is for these reasons that the Ramsar Convention recommends that the 2002 World Summit recognize the importance of States protecting and using their freshwater wetland resources wisely.

172. As was advocated for coastal wetlands (see section 5), Parties should be encouraged to use their sovereign right of designating Ramsar sites to systematically identify their key freshwater wetland sites as Wetlands of International Importance, as a 'tool' to assist sustainable development aspirations, and particularly for sustainable water resource management.

173. It is time to move from a point where, in the apportionment of scarce water resources within river basins and catchments, wetlands are considered competitors for water that could be put to more productive uses. This thinking is as outdated as the notion that wetlands could be 'reclaimed' for more productive purposes.

174. Rio+10 has the opportunity to help the Parties to the Ramsar Convention to reconsider their national networks of Wetlands of International Importance from a different perspective, that of managing water resources for sustainability. There are at present 857 of the World's 1050 Ramsar sites (82 %) in 123 countries which contain freshwater wetland types. If this could be doubled within the next five years (the Ramsar target) and could be done so as to include the most critical freshwater wetlands within each river basin, then a significant contribution to alleviating the impacts of the water crisis will have been made.

175. A related issue is that of ecosystem restoration, and especially wetland restoration. As the functions and services provided by wetlands have now been understood, so too have we learned how to re-create them - up to a point. It remains more cost-effective to conserve the natural systems, but the technology does now exist to put back what through ignorance was taken away.

176. This is now a major growth area for the Ramsar Convention, and it is especially the case where Parties have specific water management objectives (improved water quality, water storage, flood mitigation, etc.) in mind. The same applies to a number of other ecosystems types today and Rio+10 must take the proactive step of agreeing to redouble the effort in ecosystem restoration. Again, if the human race is to take prudent steps to reverse environmental degradation and the breakdown of fundamental ecosystem processes, then restoring at least part of the ecosystems which have been destroyed seems a logical response.

Information box 21 – Wetlands and water purification

- Plants and soils in wetlands play a significant role in purifying water, removing high levels of nitrogen and phosphorous and, in some cases, removing toxic chemicals.
- Florida's cypress swamps remove 98% of all nitrogen and 97% of all phosphorous entering the wetlands from waste water before this water enters the groundwater.
- The 8,000-hectare East Calcutta marshes, a patchwork of tree-fringed canals, vegetable plots, rice paddies and fish ponds, along with the assistance of 20,000 people, daily transform one third of the city's sewage and most of its domestic refuse into 20 tonnes of fish and 150 tonnes of vegetables.

Information box 22 - An integrated wetland and catchment management project in the Loktak Lake Basin, India

Loktak Lake, a Ramsar site since 1990, is the largest wetland in the northeastern region of India. It supplies water for the generation of hydroelectric power, irrigation and domestic use as well as supporting a large number of people living around the lake who depend upon the lake resources for their sustenance.

Loktak Lake Basin is a sub-basin of the Manipur River Basin. Since 50% of the domestic produce in the Manipur Basin is generated from the agricultural sector, water supply for irrigation is of the utmost importance. However, construction of dams and barrages in connection with several significant irrigation projects, along with deforestation, shifting cultivation, uncontrolled use of fertilizers, etc., have degraded the river basin to a considerable extent.

Within Loktak Lake itself, deforestation in the catchment and the construction of the Ithai barrage, which inundated 80,000 hectares of land, have led to a number of problems:

- Siltation
- Weed infestation
- Loss of biodiversity
- Decrease in fisheries production
- Decrease in power generation
- Flooding
- Pollution

Loktak Lake is managed by various agencies within the State Government (such as the Departments of Environment, Forests, Wildlife, Irrigation, Agriculture, etc.). The Loktak Lake Development Authority (LDA), though responsible for a coordinated approach interacting with several departments, has been working within the limited area of Loktak Lake. Clearly, a broader-scale, more integrated approach is required and a single agency, with a multidisciplinary and multisectoral approach, has to be established to ensure the sustainable development of the entire river basin.

With this objective in mind, Wetlands International - South Asia and the LDA are currently undertaking a project on Loktak Lake involving local communities, NGOs, government agencies and research/academic institutions. The main aim is to promote an integrated management approach and to build up technical and managerial capabilities in LDA and other concerned agencies in order to address the issues of water management and sustainable development of Loktak Lake within the Manipur River Basin. The specific objectives and strategies of the project are:

- Control soil erosion through afforestation, fuelwood and fodder plantation, regeneration of degraded forests, control/improve shifting cultivation, engineering measures.
- Optimise the water level in the lake through hydrologic modelling and interventions to realise the multiple values and functions of the wetland (power generation, wildlife, fisheries, flooding, water quality).
- Enhance water holding capacity by hydrologic interventions at critical zones and improve flow and capacity.
- Improve water quality through control of nutrient input/pollutants from point and

non-point sources.

- Develop sustainable fisheries with emphasis on enhancing fish yield and diversity by developing mechanisms for fish migration and restocking.
- Conserve the endangered Sangai deer through habitat improvement of Keibul Lamjao National Park.
- Mitigate flooding by rehabilitation of wetland processes and engineering measures.
- Ensure the participation and development of local communities by their involvement in various components of the project and through alternative/additional income generation demonstration projects.

Full text of the case study 'Integrated wetland and river basin management - a case study of Loktak Lake' by Dr C. L. Trisal, Wetlands International-South Asia, is available from the Ramsar Convention Bureau's Web site: http://ramsar.org/wurc_index.htm.

From Ramsar's Wise Use 'Toolkit' Handbook 4 "Guidelines for integrating wetland conservation and wise use into river basin management"

Information box 23 – Wetlands and flood control

- Wetlands often play a crucial role in flood control. Loss of floodplains to agriculture and human habitation has reduced this capacity. Construction of levees and dams on rivers to improve flood control have often had the reverse effect. A recent study in the USA estimated that 0.4 hectares of wetland can store over 6,000 cubic metres of floodwater.
- Floodplain restoration and removal of structures is providing a partial solution in many countries.
- Losses in the 1998 floods in China amounted to 230 million people affected, 20 million people displaced, over 3,500 killed, 7 million homes destroyed, 15 million farmers suffering loss of their crops; the estimated total economic losses exceeded US\$ 32 billion. 'Reclamation of the wetlands around lakes and rivers for cultivation to feed the growing population has been identified as one contributing factor.
- The 1993 floods along the Mississippi caused US\$ 12-16 billion in damage and 3,800 ha of intact wetlands on the Charles River have been valued at US\$ 17 million per year in terms of flood protection alone.

Information box 24 - Tri-national Prespa Park

On World Wetlands Day, 2 February 2000, the Ramsar Bureau participated in ceremonies near Prespa Lake that were attended by the Prime Ministers of Albania, Greece, and the Former Yugoslav Republic of Macedonia -- the purpose of the trilateral meeting of Prime Ministers was jointly to declare the transboundary "Prespa Park", a new protected area including parts of all three countries.

This first transboundary protected area in the Balkan region has since moved closer to implementation following a working meeting amongst these three countries, facilitated by the Ramsar secretariat. The meeting was successful in pushing forward concrete plans for setting up a Coordinating Committee, developing a strategic plan, and establishing infrastructure.

Some of the conclusions of the working meeting were that the preparation of a *Strategic Action Plan for the Sustainable Development of the Prespa Park* should start at once. The preparation of the Strategic Action Plan will be the responsibility of the Society for the Protection of Prespa based in Greece with the full participation of one NGO from the two other countries, appointed by the corresponding governments. The project will be funded by the Government of Greece, and will be monitored and guided by the Prespa Park Coordination Committee. The Greek Government will fund building, equipment and facilities infrastructure for the monitoring of environmental parameters in Albania and the FYR of Macedonia, and the two governments concerned shall be fully involved in the location, design and implementation of this initiative.

As a major GEF project proposal for the Albanian side of Prespa Lake is being submitted, the meeting recommended that complementary action be considered in the other two countries, with the assistance of UNDP, and under the guidance of the Coordination Committee at the appropriate stage. The meeting also requested that support be provided for the development of this project by the Mediterranean Wetlands Initiative (MedWet – see section 2.6).

Information box 25 - Wetland restoration in the Egyek-Pusztakócs Marshes, Hortobágy National Park, Hungary

Established in 1973, the 74,280-hectare Hortobágy National Park is a Biosphere Reserve, under UNESCO's Man and the Biosphere Programme, and part of the area has been designated as a Ramsar site. The Park is dominated by extensive alkaline grasslands - making it the largest natural grassland in Europe - interspersed with diverse wetland habitats such as temporary alkaline marshes, permanent marshes, ephemeral waters, oxbow lakes and fishponds.

The project was accompanied by an ecotourism development project for raising public awareness of nature conservation and importance of wetlands. Both projects were funded by the Central and Eastern Europe Environmental Support Fund, under the Danish Ministry for Environment and Energy. The ecotourism project has provided a 30 kilometre-long bicycle path which crosses the Egyek-Pusztakócs Marshes, a wooden path with a bird hide which has been installed in one of the marshes, and a number of signboards which provide information to visitors on the flora and fauna of the marshes and on wetland management.

These wetlands support a diversity of plant and animal life. Many bird species have been recorded, including some which are rare and endangered, and the area is an important stop-over site for large numbers of migrating waterbirds, including 40-60,000 Common Cranes (*Grus grus*) which pass through in autumn.

The wetlands have undergone a steady deterioration, which began in the middle of last century and continued into the 1980s, through intensive agricultural activities which have altered the natural water regime. Since the end of the 1980s, the Hortobágy National Park Directorate (which manages the Park) has worked towards ensuring an adequate water supply to the Park to maintain the wetlands. The Directorate began a rehabilitation project in 1996 for the 4,073-hectare Egyek-Pusztakócs Marshes, a Ramsar site within the Park which includes the main wetland habitats of Hortobágy.

The Marshes, once covering 10,000 hectares, are being re-flooded through an artificially

constructed canal system totalling 12,500 metres in length. The canal system has been constructed so that the water in each marsh can be independently regulated, and the whole area is flooded gravitationally each year through these canals to simulate the original water regime before human intervention. Annually, 3 million cubic metres of water are needed to flood all the marshes to a depth of 0.2-2.5 metres. During the year the marshes gradually dry out to differing degrees thus maintaining the natural diversity of the wetlands in the area.

This complex restoration project was implemented with the cooperation of a Danish company, and it has been highly successful in restoring plant and animal life typically associated with alkaline marshes; the area is now dominated by marsh vegetation thought to be similar to the original flora, and the number of migrating geese and waders has increased significantly.

For further information on these projects contact:

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From Ramsar's Wise Use Handbook 4 "Guidelines for integrating wetland conservation and wise use into river basin management"

Section 7. Biodiversity conservation and sustainable use

7.1 Introduction

177. Chapter 15 of Agenda 21 addresses the issues relating to the conservation of biological diversity, noting that "Our planet's essential goods and services depend on the variety and variability of genes, species, populations and ecosystems" (Paragraph 15.2).

178. Not surprisingly the stated objectives under Chapter 15 in large part form today's agendas of the Convention on Biological Diversity. Significantly, from the perspective of the Ramsar Convention, Chapter 15 makes some key references to wetland ecosystems.

179. Under "Activities, (a) Management-related activities", paragraph (b) urges countries to "integrate strategies for the conservation of biological diversity and the sustainable use of biological and genetic resources into relevant sectoral or cross-sectoral plans, programmes and policies, with particular reference to the special importance of terrestrial and aquatic biological and genetic resources for food and agriculture."

180. In the same section, paragraph (g) states "*In situ* measures should include the reinforcement of terrestrial, marine and aquatic protected area systems and embrace *inter alia*, vulnerable freshwater and other wetlands and coastal ecosystems, such as estuaries, coral reefs and mangroves."

181. Further, paragraph (h) in this section advises governments and others to "promote the rehabilitation and restoration of damaged ecosystems and the recovery of threatened and endangered species."

182. Finally, (c) describes a range of actions under "International and regional cooperation and coordination", and paragraphs (e), (f) and (g) are of direct relevance as follows:

(e) Promote cooperation between the parties to relevant international conventions and action plans with the aim of strengthening and coordinating efforts to conserve

biological diversity and the sustainable use of biological resources;

(f) Strengthen support for international and regional instruments, programmes and action plans concerned with the conservation of biological diversity and the sustainable use of biological resources;

(g) Promote improved international coordination of measures for the effective conservation of and management of endangered/non-pest migratory species, including appropriate levels of support for the establishment and management of protected areas in transboundary locations.

7.2 Collaboration with the Convention on Biological Diversity

181. Without specifically referring to the Convention on Wetlands, the above quotations from Chapter 15 of Agenda 21 have set the scene for the ever-strengthening partnership which now exists between the Convention on Biological Diversity (CBD) and the Ramsar Convention. CBD's 3rd Conference of Parties in 1996 endorsed the Ramsar Convention as the "lead partner" (Decision III/21) for actions relating to wetland ecosystems, and this relationship has now evolved into a model of partnership and collaboration between conventions.

182. As outlined in more detail in section 8.3, the working partnership between the Ramsar Convention and the Convention on Biological Diversity was initiated through the Memorandum of Cooperation signed in January 1996. In 1998 the first Joint Work Plan between the Conventions was adopted and a second is now in place, covering the period up until the end of 2001.

183. The full scope of the working partnership between CBD and Ramsar is further described in section 8.3; however, in the context of reviewing work to pursuant to Chapter 15 of Agenda 21, several aspects of the CBD-Ramsar partnership are significant. Ramsar's broad definition of 'wetlands' means that it has a direct interest in CBD's work on ecosystem themes ranging from inland waters and coastal systems to forests (flooded peat swamps forests, for example – see [Information box](#) below), agricultural lands, drylands and mountain ecosystems.

184. Both CBD and Ramsar are pursuing similar agendas in terms of the so-called cross-cutting issues such as alien species, incentives, indicators, sustainable tourism and sustainable use of natural resources. The efficiencies being gained through their now coordinated efforts in these fields are a lesson for the broader implementation of Agenda 21 and the UNCED conventions especially. And, finally, the JWP recognizes most importantly the need to ensure strong institutional-level links between subsidiary scientific bodies of the conventions, their national focal points and in national reporting. All of these are now being addressed by CBD and Ramsar through the vehicle of their landmark Joint Work Plan.

7.3 Ramsar's List of Wetlands of International Importance

185. One aspect of the Ramsar Convention's three pillars of operation, its List of Wetlands of International Importance, deserves special mention in this context, and by the Rio+10 deliberations. As it stands today there are 1050 Wetlands of International Importance spread across the 123 Contracting Parties. These have a combined area of nearly 80 million hectares and include the full range of wetland types recognized under the Ramsar Convention (see Table 3 in Section 5).

186. Ramsar considers that these are the genetic, species and ecosystem reservoirs of the planet, and areas within which the principles of wise use are exercised and demonstrated. Of these, 857 contain freshwater wetlands types, and 498 coastal wetland ecosystems, and 299 include human-made or purpose wetlands which have special ecological attributes and values. (Note, the addition of these exceeds 1050, the total number of sites, as some sites contain several wetland types).

187. This global network, which continues to expand and diversify each week, must now be recognized as the global natural asset it represents.

188. At its COP7 in 1999, the Ramsar Convention Parties recognized the need to ensure that the ever-expanding List of Wetlands of International Importance included THE most important wetland sites; important from the perspective of biodiversity conservation, but also in terms of ecological and hydrological functioning. It adopted the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11, Handbook 7 of the Ramsar Wise Use 'toolkit') and set the ambitious target of achieving a List of 2000 Ramsar sites by the time of Ramsar COP9 in 2005. Parties are urged to take a systematic approach to future designations to ensure the Convention is able "to develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the ecological and hydrological functions they perform" – this is the Vision for the Ramsar List of Wetlands of International Importance.

189. It is also significant that the Vision for the Ramsar List urges Parties to "develop and maintain" the network of sites. In order to assist Parties and local people with this important endeavour, the Ramsar Convention has produced as Handbook 8 of its Wise Use 'toolkit' an assembly of previously adopted guidance relating to site management – the Handbook goes by the title of "*Frameworks for managing Wetlands of International Importance and other wetlands*". The reference to "other wetlands" in the title of this Handbook is also noteworthy, as the assembled guidance on management planning, monitoring, risk assessment and impact assessment is applicable to all wetlands.

190. Of the eight Ramsar criteria for the identification of Wetlands of International Importance, seven form Group B, "Sites of international importance for conserving biological diversity" (see [Information box 29](#) at the end of this section), and among these are specific criteria dealing with sites important for vulnerable, endangered, or critically endangered species or threatened ecological communities (Criterion 2), sites important for supporting populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region (Criterion 3) and sites important for supporting plant and/or animal species at a critical stage in their life cycles, or that provide refuge during adverse conditions (Criterion 4). In terms of broad biodiversity conservation it is notable that of the 1045 sites at present, there are 656 of these that meet criterion 2, 520 that meet criterion 3 and 498 that meet criterion 4.

191. These figures show how the Ramsar site network is making a major contribution to global biodiversity conservation. When the broad scope of Ramsar's wetland definition is considered, these criteria offer enormous potential to see designated under the Ramsar Convention a major proportion of the world's most vital ecosystems and habitats for conserving biodiversity. This avenue deserves serious exploration by the respective subsidiary scientific bodies of the two Conventions and should be encouraged by Rio+10.

192. An important element of the Ramsar List of Wetlands of International Importance is that the Convention's 'wise use' concept (sustainable development) is totally compatible with the act of designating a site. The Parties at Ramsar's 7th Conference of Parties endorsed the following:

"The act of designating (listing) under the Convention a wetland as internationally important is an appropriate first step along a conservation and sustainable use pathway, the endpoint of which is achieving the long-term wise (sustainable) use of the site."

From Section III, *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance*, Handbook 7 in the Ramsar Wise Use 'Toolkit'

193. This statement is highly significant in the context of Agenda 21, as it can be taken to indicate that at least in principle, the global network of Ramsar sites is in fact designed to be 'demonstration'

sites for sustainable development. Accordingly, they should be recognized as such by Rio+10, and the full weight and support of the United Nations should be directed to seeing this site network developed and maintained as "an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the ecological and hydrological functions they perform" – as prescribed by the Vision of the Ramsar List.

194. Also among the Ramsar criteria are two that deal specifically with waterbird habitats (Criteria 5 and 6). To many people this was the trademark of the Ramsar Convention for many years. Today, this continues to be an important part of the Conventions' work, especially as wetland habitats continue to be placed under threat.

195. The global efforts to protect migratory waterbirds in particular are now becoming very well organized (see [Information box 30](#) below), although the threats remain and some populations continue to decline. Ramsar's major contribution to this global biodiversity conservation effort has been to see a large number of sites designated as Wetlands of International Importance; thus serving to support the creation of site networks critical as refuges, stopover and breeding habitats for these more than 400 species. In fact, of the 1050 Ramsar sites at present, 418 have been designated due to fulfilling criterion 4 and 475 have satisfied criterion 6.

7.4 Thematic and policy review and recommended 'course corrections'

196. Ramsar's contribution to this area of Agenda 21 can be summarized as follows:

- a) Ramsar's Memorandum of Cooperation and associated Joint Work Plan with the Convention on Biological Diversity (see section 8 as well);
- b) an expanding network of Ramsar sites - 1050 Wetlands of International Importance, all of which are contributing to biodiversity in some way, many in a most significant way as habitats for threatened or endangered species or ecological communities;
- c) 416 Ramsar sites (44%) where management plans to promote conservation and wise use are in place or being developed, with a target of approximately 1200 by the end 2002;
- d) publication of *Frameworks for managing Wetlands of International Importance and other wetlands* (Handbook 7 in the Ramsar Wise Use 'Toolkit') providing guidance on management planning, site monitoring and risk assessment;
- e) publication of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Handbook 7 in the Ramsar Wise Use 'Toolkit'), including its special guidance on the designation of karst and other subterranean hydrological systems;
- f) Ramsar's *Global Action Plan for the Wise Use and Management of Peatlands*;
- g) the supplementary guidance being developed by Ramsar's STRP to assist Parties with identifying their internationally important peatlands, wet grasslands coral reefs, mangroves, sea grass beds and soft-bottomed communities; and
- h) the several migratory bird 'flyway' initiatives now operating in the Americas, Asia-Pacific, and Africa-Eurasia.

197. Some of the challenges facing Ramsar in this area include:

- a) to help Ramsar's working partnership with the Convention on Biological Diversity

continue to strengthen and provide the benchmark for inter-convention cooperation;

b) to have the expanding network of Ramsar Wetlands of International Importance recognized by Rio+10 as a key element of global strategies for sustainable development;

c) to see management planning for all Ramsar sites accelerated, for these plans to be developed through close consultation with major groups and to promote sustainable development and biodiversity conservation;

d) to urge Parties to the Convention to apply the *Strategic Framework for the development of the Ramsar List of Wetlands of International Importance*, resulting in increasing numbers of under-represented wetland types, and those wetlands most important for biodiversity conservation and sustaining life, being designated under the Convention and managed for sustainability;

e) to see Ramsar's *Global Action Plan for the Wise Use and Management of Peatlands* being fully implemented by all Parties, including sustainable use strategies for peatlands, and a comprehensive global network of peatlands Ramsar sites; and

f) to urge an increase in efforts to conserve migratory birds and their wetland habitats.

Policy review and recommended 'course corrections' for Rio+10

198. The Convention on Biological Diversity (CBD) has a far-reaching and ambitious agenda. By comparison, the Ramsar Convention is somewhat narrower in scope than CBD, although (as shown in this section) through its very broad definition of 'wetland' Ramsar has a direct interest in several of CBD's ecosystem themes. Like CBD, the Ramsar Convention is also addressing a range of cross-cutting themes. It is therefore very encouraging that these two conventions are now working so closely together and that CBD can rely on a more specialized convention to advance key aspects of its work programme. Conversely, through CBD's taking the lead on some cross-cutting issues, the Ramsar Convention can benefit from the products of CBD's deliberation and deliver these in turn to its focal points. Rio+10 should recognize and commend this working partnership for all that it represents.

199. In the biodiversity conservation and sustainable use realm Rio+10 has a number of considerable challenges. As environments degrade and habitats fragment, conserving genes, species, populations and ecosystems becomes even more challenging. In the preceding section, Rio+10 was urged to adopt ecosystem restoration as a priority and this same challenge applies here in terms of conserving biological diversity.

200. Close examination of the CBD and the Ramsar Convention texts reveals parallels with respect to *in-situ* conservation which Ramsar believes offer an opportunity for the two Conventions to support one another even more strongly than at present, and through so doing, to advance significantly the implementation of Agenda 21.

201. CBD's Article 7 (Identification and Monitoring) and its associated Annex I, Article 8 (*In-situ* conservation) and Article 10 (Sustainable use of components of biological diversity) have direct parallels in the Ramsar Convention through the various articles which consider the identification and designation of Wetlands of International Importance (Articles 2.1 and 2.2), the monitoring of these sites (Article 3.2), and the application of the Wise Use principle (Article 3.1). CBD's Article 8 relating to *in-situ* conservation refers to the establishment of protected areas "where special measures need to be taken to conserve biological diversity".

202. To date 123 Parties to the Ramsar Convention have identified and designated 1050 Wetlands of

International Importance which can be found spread across CBD's so-called ecosystem themes (inland water, marine and coastal, drylands, mountains, etc.). In so doing these Parties have made a major contribution to their national obligations under CBD as well. This incidental synergy comes about because of the eight Ramsar site criteria, seven form Group B, which determine "Sites of international importance for conserving biological diversity" (see [Information box 29](#)), and among these are specific criteria dealing with:

- a) sites important for vulnerable, endangered, or critically endangered species or threatened ecological communities (Criterion 2);
- b) sites important for supporting populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region (Criterion 3); and,
- c) sites important for supporting plant and/or animal species at a critical stage in their life cycles, or that provide refuge during adverse conditions (Criteria 4).

203. Of the 1050 Ramsar sites at present, 656 of these are included on the basis of Criteria 2, 520 because of Criteria 3 and 498 because of Criteria 4. Many sites satisfy more than one criterion.

204. These figures show how the Ramsar site network is making a major contribution to global biodiversity conservation, and if promoted by Rio+10 as a mechanism for furthering Agenda 21 in this area, the global network of Wetlands of International Importance would instantly become a major plank in the efforts to conserve biological diversity. Ramsar's Wise Use principle means that Wetlands of International Importance are 'demonstration' sites for sustainable development and also 'demonstration' sites for sustainable use of biological diversity.

Information box 26 – Valuing wetland services – Products

- The list of products from wetlands exploited by humans is immense. Exploitation is carried out at all levels from a commercial scale to cottage industries to subsistence levels.
- One billion people eat fish as their primary source of protein. The majority are marine fish, two thirds of which rely on coastal wetlands at some stage in their life cycle.
- Well managed coral reefs can produce 15 tonnes of fish and other seafood per km² per year.
- Mangroves in Moreton Bay, Australia, were valued at US\$ 4,850 per hectare from the catch of marketable fish.
- Rice, a wetland plant, is the staple diet of 3 billion people
- The international trade in crocodilian skins is worth US\$ 500 million per year.
- In Brazil, the 1 million hectare Mamirauá Reserve is the source of wetland products worth US\$ 4.4 million per year.

Information box 27 - Peatlands at Risk

Covering some 400 million hectares in total, peatlands represent approximately 50% of the world's terrestrial and freshwater wetlands. Despite being the most extensive single wetland type in the world, less than 10% of the global peatland area is represented on the Ramsar List. As of October 1999, only 93 (or 9%) of the 1005 sites on the Ramsar list contain forested peatlands, while 238 (or 24%) contain non-forested peatlands.

Peatlands are made up of mainly semi-decayed plant material accumulated over some five to eight thousand years. They are major contributors to the biological diversity of regions in many parts of the world but particularly in the tropics. Peatlands provide a variety of goods and services, both directly and indirectly, in the form of forestry and fishery products, energy, flood mitigation, water supply and groundwater recharge. They also have a functional significance far beyond their actual geographical extent – the carbon stored in peat represents 25% of the world soil carbon pool which would contribute to global warming and climate disruption if released.

The world's peatlands are under increasing pressure from development such as agricultural conversion, forestry and mining, for both energy and horticultural supplies. The recent forest fires in Southeast Asia drew international attention to the adverse economic, social and cultural impacts of the ongoing degradation and destruction of tropical peatlands. In its response entitled *Wetlands on Fire* (October 1997), the Standing Committee of the Ramsar Convention called upon Parties to recognize that it can only be through strategic policy decisions and actions that we can hope to see peatland resources managed for long-term sustainability.

Recommendation 7.1, *A global action plan for the wise use and management of peatlands* (see Appendix I), and its Annex, a *Draft global action plan for the wise use and management of peatlands*, define Ramsar's response to the need for urgent action for the conservation and wise use of this threatened global resource. Among others, it calls for a global inventory and evaluation of peatlands, protection for sites at particular risk (such as tropical and boreal peatlands), the designation of additional peatland sites to the Ramsar List and increasing understanding and awareness of the functions and values of peatlands. The Global Action Plan is expected to be finalised early in the year 2000.

From Ramsar Wise Use Handbook 7, "Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance"

Information box 28 – Valuing wetland services – Ecotourism

- Many wetlands are prime locations for tourism; some of the finest are protected as National Parks, World Heritage Sites, Ramsar sites, or Biosphere Reserves. Many wetland sites generate considerable income locally and nationally.
- Recreational activities such as fishing, hunting and boating, etc., involve millions of people who spend billions of dollars annually on these activities.
- Wetlands offer ideal locations for involving the general public and schoolchildren in hands-on learning experiences, in an essentially recreational atmosphere, to raise awareness of environmental issues.
- In Australia, the Great Barrier Reef Marine Park recorded 1.6 million visitor-days with a value of more than US\$ 540 million in 1997 while the more remote Kakadu National Park collects US\$ 800,000 annually.
- The Cayman Islands attract 168,000 divers per year, who spend US\$ 53 million.
- Collectively, Caribbean countries rely on their beaches and reefs to attract million of visitors each year; their tourist industry was valued at US\$ 8.9 billion in 1990, one half of their GNP.
- Recreational fishing involves more than 45 million people in the USA, who spend US\$ 24 billion annually on their hobby.
- In Canada, Mexico and the USA, more than 60 million people watch migratory birds as a hobby and 3.2 million hunt ducks, geese and other game birds; collectively they generate more than US\$ 20 billion annually in economic activity.

Information box 29 - Ramsar's network of Wetlands of International Importance

A global biodiversity asset worth nurturing

Today there 1050 Ramsar sites spread across 123 countries. With a total area of nearly 80 million hectares, they are making a major contribution to Agenda 21.

The Vision for the List of Wetlands of International Importance is "*To develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the ecological and hydrological functions they perform*".

The Ramsar criteria for designation of Wetlands of International Importance:

Group A of the Criteria. Sites containing representative, rare or unique wetland types

Criterion 1: A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.

Group B of the Criteria. Sites of international importance for conserving biological diversity

Criteria based on species and ecological communities

Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

Criterion 3: A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.

Criterion 4: A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.

Specific criteria based on waterbirds

Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.

Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

Specific criteria based on fish

Criterion 7: A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits

and/or values and thereby contributes to global biological diversity.

Criterion 8: A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.

Information box 30 - International cooperation and the conservation of migratory waterbirds

With amazing precision, migratory birds fly hundreds, sometimes thousands, of kilometres each year, leaving their breeding sites in the northern hemisphere in autumn and spending the winter months in the southern hemisphere. Between the two areas, the migrants rely on suitable 'stopover' sites where they can feed and rest before continuing their journey. This complex lifestyle presents a special challenge to those concerned with their survival since one break in the link could spell disaster for whole populations of migrants. Collaborative efforts have to be made at an international level to ensure the conservation of all critical sites, which may be located in several different countries, hundreds of kilometres apart.

In the past 15 years, contrasting innovative solutions have been found to safeguard critical sites for shorebirds and other species which utilize wetland habitats at some stage during their migration. Some solutions have involved formal intergovernmental agreements such as the North American Waterfowl Management Plan and the African-Eurasian Migratory Waterbird Agreement (AEWA), while others have involved the development of informal site networks such as the Western Hemisphere or the East Asian-Australasian Shorebird Reserve Networks. Both approaches have produced effective international mechanisms for safeguarding sites along flyways (the routes used by migratory shorebirds).

For the Asian region, the Asia-Pacific Migratory Waterbirds Conservation Strategy for the period 1996-2000 provided a framework for important waterbird conservation initiatives to be undertaken over the five-year period. The Strategy was developed through the collaborative efforts of many governmental and non-governmental organizations at a number of international conservation fora in 1994 and 1995. Contracting Parties to the Ramsar Convention were strongly encouraged at COP6 (through the *Brisbane Initiative*, Recommendation 6.3), to give their support to the implementation of the Strategy, which is coordinated by Wetlands International. In Okinawa in Japan in late 2000 the new Asia-Pacific Migratory Waterbirds Conservation Strategy for the period 2001 – 2005 was adopted.

A priority of the Strategy has been the establishment of three highly successful migratory bird networks, the East Asian-Australasian Shorebird Reserve Network, the North East Asian Crane Site Network and the East Asian Anatidae Site Network. Collectively, these international networks include 78 key wetland sites along the Asia-Pacific flyway where efforts are made to safeguard critical stopover sites and to collect and exchange data on their migratory visitors.

Knowledge of migration patterns (when the species move and where) and of the key sites (breeding, non-breeding and stopover) is critical baseline information for effective conservation, yet this information is often scattered or unpublished. In support of the Strategy and the AEWA, Wetlands International has begun compiling the available

information into flyway atlases which cover taxonomic groups of waterbirds in geographic regions. Four atlases are available or in progress and more are planned.

For the Americas, the Western Hemisphere Shorebird Reserve Network (WHSRN) and The North American Waterfowl Management Plan work collaboratively in the USA and Canada to strengthen shorebird and wetland conservation. The WHSRN, which also extends into Mexico and South America, is jointly implemented by Wetlands International-Americas and the Manomet Observatory. Membership in this network, which includes public and private lands, is completely voluntary and there are network reserves in Argentina, Brazil, Canada, Mexico, Peru, Suriname and in 12 States in the USA.

The North American Waterfowl Management Plan, signed in 1986 by Canada and the United States of America, and by Mexico in 1994, is a collaborative conservation effort from thousands of partners representing a wide range of interests in the three countries. The challenge for the Plan was to coordinate and focus conservation activities in the three countries to measurably increase the populations of a highly mobile, shared migratory resource - waterbirds. While the Management Plan has been signed by the three governments, its success lies in the diverse and effective public-private partnerships which have evolved. These partnerships recognized that effective conservation efforts in the 1990s would have to go beyond the traditional focus on public natural resource lands to encompass whole landscapes, including private and common lands. This landscape approach to managing waterbird habitat seeks to balance conservation and socioeconomic objectives within a region, and long-term success depends on the commitment of local communities to the concept of stewardship, including planning, implementation and caretaking.

Collectively, the partners have worked to conserve 5 million acres (over 2 million hectares) of wetland ecosystems, investing over US\$1.5 billion between 1986 and 1997 in restoring, protecting, improving and managing wetland habitats for migratory birds, benefiting at the same time many other groups of animals and plants. This has been accomplished through a range of projects and joint ventures coordinated by an 18-member Plan Committee.

The most recent formal agreement on migratory birds is the African-Eurasian Migratory Waterbird Agreement (AEWA), which came into force in November 1999. Coming under the Bonn Convention (the Convention on the Conservation of Migratory Species of Wild Animals), this agreement was spearheaded by the Dutch Ministry of Agriculture, Nature Management and Fisheries. It covers a large part of Eurasia, Northern America and the whole of Africa (around 120 countries) and includes 170 species of waterbird. The Agreement has two parts both of which are legally binding. The Agreement text outlines the philosophy, legal framework and provisions, while the Action Plan describes the conservation actions to be undertaken. The key points of the comprehensive Action Plan include:

- Regulation of hunting according to the conservation status of each population, recognizing that hunting can play a positive role in certain circumstances;
- Preparation and implementation of action plans for single species considered to be most at risk;
- Development of emergency measures;
- Re-introduction programmes;
- Measures to address problems associated with invasive species;
- Habitat inventories, conservation and management measures (linked to the Ramsar Convention);

- Management of human activities (such as tourism), crop damage conflicts, etc; and
- Development and coordination of research, monitoring, awareness and training programmes.

From Ramsar Wise Use Handbook 9, Guidelines for International Cooperation under the Ramsar Convention on Wetlands

Section 8. Ramsar and the UNCED Conventions and international cooperation

8.1 Introduction

205. UNCED saw the birth of two international instruments designed specifically to address cornerstone issues of Agenda 21: the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD). Later, as a result of the UNCED process, the United Nations Convention to Combat Desertification (CCD) came into being.

206. The evolution of the Ramsar Convention pre-dated these three conventions by over 20 years, yet because of the foresight of its architects, and the breadth of its mandate, the Convention on Wetlands was, and remains today, a natural partner of all three of the UNCED-related Conventions.

207. Over the past five years the Ramsar Convention has proactively sought to articulate and demonstrate the areas of common and complementary interest with the three UNCED Conventions, and as the following sections reveal, is today recognized as an increasingly important partner in assisting them to deliver on their respective, yet inter-related, mandates.

208. It is clear that the emergence of the three UNCED-related Conventions has stimulated much debate, focused political minds, and mobilized actions and funds to address the issues of desertification, biodiversity conservation, and climate change. However, there do remain fundamental challenges in seeing these conventions delivered on-the-ground in more integrated ways.

209. As Agenda 21 states many times, the key to sustainable development lies in seeing institutional and programmatic barriers broken down so that environmental, social and economic aspirations can be balanced. As the foregoing sections in this submission reveal, the modern Ramsar Convention is playing a significant role in assisting this process through its efforts to work with, and in partnership with, the three UNCED Conventions.

210. Apart from its emerging partnership with UNFCCC, and established collaboration with CBD and CCD, the Ramsar Convention also has in place Memoranda of Cooperation or Understanding with the Convention on Migratory Species, UNESCO's World Heritage Centre, the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (the Cartagena Convention), and the Convention for the protection of the Mediterranean Sea Against Pollution (the Barcelona Convention).

211. The Convention also has a range of other agreements with NGO and scientific organizations (see Sections 3). Other, similar partnerships are also anticipated including with UNESCO's Programme on Man and the Biosphere, the Convention on International Trade in Endangered Species (CITES), The Convention on the Protection of the Marine Environment of the Baltic Sea, the European Commission, the South Pacific Regional Environment Programme (SPREP), the International Coral Reef Initiative, and the World Water Council. Further details of Ramsar's 'targets' in this regard can be found in the "The Convention Work Plan 2000-2002" as approved by Ramsar COP7 (1999).

212. The Programme for the Further Implementation of Agenda 21 suggested a range of 'tools' to

assist greater collaboration between conventions. Paragraph 118 suggests various ways to bring about such collaboration, including improved scheduling of meetings, integrated national reporting, improved balance between the sessions of the conferences of the parties and their subsidiary scientific bodies, and facilitating the participation of governments in these same sessions. Further, in paragraph 119; "At the international and national levels there is a need for, *inter alia*, better scientific assessment of ecological linkage between the conventions; identification of programmes that have multiple benefits; and enhanced public awareness-raising with respect to the conventions."

213. While there has been progress made in terms of some of these proposed actions, it cannot be said that this has yet yielded the fruit which was sought by the 19th Special Session of the UN General Assembly when adopting the 'Programme for the Further Implementation of Agenda 21'. Specifically, there has been work done to move toward more harmonized information management and national reporting (see [Information box 31](#)), although this has to date been restricted to the so-called 'biodiversity-related' conventions – a major limitation in terms of sustainable development and Agenda 21 aspirations.

214. As follow-up to the recommendations of the WCMC report described in Information box 31 at the end of this section, a workshop in October 2000 in the United Kingdom explored ways of establishing a more harmonized approach to national reporting to international biodiversity-related agreements, and determined to develop pilot projects for testing options at national and international levels. The workshop, attended by eight convention secretariats, including Ramsar, and several other international organizations involved in exploring convention synergies, developed four pilot projects which will be tested during 2001 in up to eight countries with different convention commitments and capacities. The pilot projects address:

- a. *Modular reporting*, through establishing a suite of discrete information packages on different elements of convention reporting requirements;
- b. *Consolidated reporting* – preparing one comprehensive report that would satisfy the reporting requirements of a range of conventions;
- c. *Linking reporting to State of the Environment Reporting processes*; and
- d. *Information management and regional support*, establishing ways of improving national information management in support of reporting, and cooperating with neighbouring countries through regional organizations.

215. A fifth project is already under way, developing a *Reporting Obligations Database*, analysis of which will help countries identify areas of overlap and synergy and guide their national information management for convention reporting.

216. Assessment of the ecological linkages between conventions has also advanced and is demonstrated clearly in the following three sections. The Joint Work Plan between the Convention on Biological Diversity and the Ramsar Convention (see section 8.3) is a model of two conventions working to identify common programmes that have multiple benefits.

218. It is evident that a great deal more is needed in order to achieve the much needed synergy at the global level.

8.2 United Nations Framework Convention on Climate Change

219. The emerging partnership between the United Nations Framework Convention on Climate Change and the Ramsar Convention is based on two contrasting, yet equally important roles which wetlands play in terms of the climate change dynamic. One is the management of greenhouse gases

(especially carbon dioxide) and the other is in physically buffering climate change impacts.

220. Ramsar submitted statements to both UNFCCC's COP5 and its COP6. The Ramsar secretariat presented to COP5 a discussion paper on "Wetlands and Climate Change" prepared for Ramsar by IUCN – The World Conservation Union. COP5 requested the Climate Change Convention Secretariat to undertake discussions with Ramsar to determine how cooperation between the Conventions could be strengthened. Both secretariats are working on this matter, on the basis of three broad themes of common interest:

- a) prediction and monitoring of the impacts of climate change on wetland areas;
- b) the role of wetlands in adapting to, and mitigating the impacts of, climate change; and
- c) the role of wetlands, notably peatland and forested wetlands, in reducing greenhouse gas emissions.

221. In addition, Ramsar's Scientific and Technical Review Panel (STRP) is preparing for Ramsar COP8 (2002) a comprehensive review of the potential impacts of climate change on wetlands, and of the roles that wetlands can potentially play in mitigating the effects of climate change and sea level rise. To progress this review and guidance the Convention has established an Expert Working Group on wetlands and climate change, which has already provided expert comments on the IPCC's Third Assessment Report.

222. The STRP is also preparing further guidance to Contracting Parties on wetland risk assessment, including the use of early warning indicators, for inclusion in the Ramsar "toolkit". This work is particularly relevant to the UNFCCC areas of work on technology transfer, adaptation and capacity building.

8.3 Convention on Biological Diversity

223. The working partnership between the Convention on Biological Diversity (CBD) and the Ramsar Convention was initiated through the Memorandum of Cooperation signed in January 1996. In 1998 the first Joint Work Plan between the conventions was adopted and a second is now in place covering the period up until the end of 2001. These Joint Work Plans recognize that CBD has formally endorsed at its 3rd Conference of Parties that the Ramsar Convention is its "lead partner" in matters relating to wetland biodiversity (Decision III/21). They also include a range of actions to be pursued jointly by the two conventions which are more cross-cutting in nature; such as action relating to incentive measures, impact assessment, and alien species.

224. The full scope of the working partnership between CBD and Ramsar is perhaps best illustrated by the table of contents of the second Joint Work Plan currently in place, as shown in [Information box 33](#) below.

225. Several aspects of the CBD-Ramsar partnership are significant. One, that Ramsar's broad definition of 'wetlands' means it has a direct interest in CBD's work on ecosystem themes ranging from inland waters and coastal systems to forests (flooded peat swamps forests, for example), agricultural lands, drylands, and mountain ecosystems.

226. Both CBD and Ramsar are pursuing like agendas in terms of so-called cross-cutting issues such as alien species, incentives, indicators, sustainable tourism and sustainable use of natural resources.

227. The efficiencies being gained through their now coordinated efforts in these fields is a lesson for the broader implementation of Agenda 21 and the UNCED-related conventions especially. And, finally, the JWP recognizes most importantly the need to ensure strong institutional-level links between subsidiary scientific bodies of the conventions, their national focal points and in national reporting.

228. It not surprising that the CBD-Ramsar Joint Work Plan is now regularly held up as the model for progressing toward more integrated implementation of international environment conventions. However, while there are some signs that this global-level collaboration is beginning to flow through to closer cooperation and integrated approaches by national focal points of CBD and Ramsar, there remain a large number of Parties in which this is not evident. Rio+10 should look in detail at this issue and develop mechanisms to overcome these institutional impediments.

229. Within the CBD-Ramsar 2nd Joint Work Plan, especially notable is Section 8 dealing with "important sites". With its now long-established List of Wetlands of International Importance, this is one major direct contribution the Ramsar Convention is making to the conservation of biodiversity, while at the same time promoting policies and approaches which see these resources used wisely.

8.4 United Nations Convention to Combat Desertification

230. A Memorandum of Cooperation (MoC) was signed between the secretariats of the Ramsar Convention and the Convention to Combat Desertification in December 1998. The reasons for this agreement are reflected in the first three of the preambular paragraphs of the MoC as follows:

RECOGNIZING the fundamental ecological functions of wetlands as regulators and providers of water, as habitats supporting characteristic flora and fauna, and which provide invaluable services and benefits for human populations around the world;

CONSIDERING that, in arid, semi-arid and dry sub-humid areas, combating desertification includes activities which are part of the integrated development of land, land meaning the terrestrial bio-productive system that comprises soil, water, vegetation, other biota, and the ecological and hydrological processes that operate within;

AWARE that the Convention on Wetlands (hereafter referred to as the "Ramsar Convention") promotes national actions and international cooperation for the conservation and sustainable (wise) use of wetlands and the hydrological systems of which they are intrinsic parts;

231. Importantly, the MoC recognized that both Ramsar and CCD promote sustainable development (called "wise use" by the Ramsar Convention).

232. The MoC articulates a range of action to be undertaken including aspects on institutional cooperation, the exchange of information and experience, capacity building and training, science and technology and the coordination of work programmes. (See [Information box 34](#) below.)

233. Intrinsically, CCD and the Ramsar Convention are both seeking to change behaviours that foster land degradation – CCD focuses its work within the arid and semi-arid regions, and Ramsar takes a more global perspective courtesy of its broad definition of 'wetland'. The same unsustainable land uses and climate change impacts that are promoting desertification also threaten wetland ecosystems. Scientific and technical cooperation is therefore vital between the conventions, and especially among national focal points. For this reason, at its 7th Conference of Parties, the Ramsar Convention's Parties invited the chair of CCD's subsidiary scientific body to become a permanent observer on the Ramsar Scientific and Technical Review Panel.

234. One key area of cooperation between the conventions for the future is at the national level, where desertification and wetland policies or strategies should be harmonized, especially for those countries with extensive arid and semi-arid areas. The Ramsar Convention encourages these countries to identify, and designate as Wetlands of International Importance, their most vital wetlands (see section 7). For the arid and semi-arid environments these are especially precious resources, important to sustaining life through providing food and water security. Both CCD and Ramsar seek to promote

the sustainable use of these resources. In the African context, where desertification is a major concern, the recent efforts to have Chad nominated as a Ramsar sites are a tangible example. (See [Information box 35](#) at the end of this section.)

8.5 International cooperation, institutional arrangements, legal instruments and mechanisms

235. In Chapter 2 of Agenda 21 international cooperation for sustainable development is considered, although more from the financial perspective than in terms of aspects such as transboundary cooperation or the sharing and exchange of knowledge. These latter issues are considered throughout the chapters of Agenda 21, where specific international cooperation is urged in order to advance action on a specific theme. Chapters 38 and 39 consider International Institutions and International Legal Instruments and Mechanisms, respectively. This section of Ramsar's Agenda 21 Report deals with each of these in turn, beginning with International Cooperation. (See also [Information box 36](#) below.)

International Cooperation

236. As indicated in the Introduction (Section 1), the Ramsar Convention is built round three main pillars – Wise use, the List of Wetlands of International Importance and International cooperation – and thus special consideration of this latter area is included here.

237. Historically the Ramsar Convention focused much of its energy on international cooperation for the protection of migratory waterbirds (see section 7.3). However, through Agenda 21, and with the mainstreaming of wetlands (in all their forms) into the center of natural resource management debates, the dimensions of international cooperation under the Convention have expanded to include the following areas:

- a) managing shared wetlands and river basins;
- b) managing shared wetland-dependent species
- c) working in partnership with other conventions and agencies;
- d) sharing of expertise and information;
- e) international assistance to support the conservation and wise use of wetlands;
- f) sustainable harvesting and international trade in wetland-derived plant and animal products; and
- g) regulations of foreign investment in ensure wetland conservation and wise use.

238. At Ramsar COP7 (1999), the Parties adopted *Guidelines for international cooperation under the Ramsar Convention on Wetlands* through Resolution VII.19. These guidelines reflect the above themes and provide advice for Parties in meeting their obligations to work with other Parties in their implementation of the Convention.

239. Some notable achievements of the Ramsar Convention in these areas of international cooperation include the following:

- a) Managing shared wetlands and river basins - the tri-national cooperation for the management of Prespa Lake between Albania, the Former Yugoslav Republic of Macedonia and Greece;
- b) Managing shared wetland-dependent species – the several migratory bird ‘flyway’ initiatives now operating in the Americas, Asia-Pacific and Africa-Eurasia;
- c) Ramsar working in partnership with other conventions and agencies – the first and second Joint Work Plans between the Convention on Biological Diversity and the Ramsar Convention;

d) Sharing of expertise and information – the Ramsar-supported Mediterranean Wetlands International, also known as MedWet (see [Information box 37](#)); and

e) International assistance to support the conservation and wise use of wetlands – the Ramsar Small Grants Fund and the Wetlands for the Future Initiative.

240. Chapter 38 considers in some detail the international institutional arrangements in place to support implementation of Agenda 21, with a focus on the United Nations system.

241. The Ramsar Convention has UNESCO as its Depository although it does not operate under the administrative umbrella of the United Nations Environment Programme (UNEP) or the UN Secretariat. The Ramsar secretariat is hosted, with a large degree of autonomy, by the World Conservation Union (IUCN). This situation is a legacy of the roots of the Ramsar Convention when NGO movement was actively involved in the formation of this international legal instrument.

242. Its rather unique administrative situation does not impede the Ramsar Convention in any way in contributing to the work of Agenda 21, or indeed other United Nations conventions and entities.

243. Similarly, the Ramsar Convention focal points and secretariat work very closely with UNEP and the UNDP, most notably in terms of projects gaining support from the Global Environment Facility.

244. Also, as demonstrated through the foregoing sections, the Ramsar Convention has excellent working relations with the UNCED-related Conventions, the Convention on Migratory Species, and UNESCO's World Heritage Centre, and is forging stronger links with the Man and the Biosphere Programme.

International legal instruments and mechanisms

245. Chapter 39 has as its stated objective (summarized) to ensure that international law and associated mechanisms are promoting the integration of environment and development policies. More specifically it speaks of addressing the difficulties that some States, particularly developing countries, may have in participating fully in international agreements and instruments, setting priorities for future law-making on sustainable development at the global and other levels, improving the effectiveness of agreements and instruments, and pre-empting disputes or conflicts between environmental and social/economic instruments.

246. From the Ramsar perspective there are a number of issues to be addressed here, such as the continuing difficulties, caused primarily by resource constraints, of developing countries in participating fully in the global-level policy development and priority setting of the conventions. This situation is further exacerbated by insufficient coordination and collaboration between the conventions – in all areas – policy, science and administration.

247. Also from the Ramsar perspective, there is a need for the Rio+10 process to fully recognize the international legal obligations imposed by the Convention on Wetlands. For example, Article 5 (see [Information box 38](#)) of the Ramsar Convention provides a most explicit obligation on Parties in relation to international cooperation over shared wetlands and water resources. This is being used to good effect by the Convention in several parts of the world today (see section 6.4), and offers Agenda 21 another mechanism which to date has not been strongly promoted by United Nations bodies.

8.6 Thematic and policy review and recommended 'course corrections'

248. Ramsar's contribution to Agenda 21 in this area can be summarized as follows:

a) Ramsar's Memorandum of Cooperation and associated Joint Work Plan with the

Convention on Biological Diversity;

b) the Memorandum of Cooperation with the Convention to Combat Desertification, and developing collaboration of work programmes;

c) the evolving recognition of areas of synergy between the United Nations Framework Convention on Climate Change and the Ramsar Convention;

d) Ramsar's Memoranda of Cooperation with the Convention on Migratory Species, UNESCO's World Heritage Centre, and the Cartagena and Barcelona Conventions;

e) first steps taken toward harmonized information management among the biodiversity-related conventions;

f) adoption of *Guidelines for International Cooperation under the Ramsar Convention on Wetlands* (Handbook 9 in the Ramsar Wise Use 'Toolkit');

g) an increasing number of instances in which neighbouring Parties are cooperating in the management of shared wetlands or river basins – in accordance with Article 5 of the Ramsar Convention relating to international cooperation (see section 6.4 also);

h) the several migratory bird 'flyway' initiatives now operating in the Americas, Asia-Pacific and Africa-Eurasia (see section 7.3);

i) the Mediterranean Wetlands Initiative (MedWet) – a model for cooperation in the implementation of an international environment convention; and

j) an increasing trend of eligible Parties accessing GEF resources for wetland-related projects;

Ramsar's Rio +10 challenges

249. Some of the challenges facing Ramsar in this area include:

a) to strengthen Ramsar's working partnership with the Convention on Biological Diversity and provide the benchmark for inter-convention cooperation;

b) to progress Ramsar's working partnership with the United Nations Framework Convention on Climate Change and the Convention to Combat Desertification by developing joint work plans like that with CBD, and to move onwards to tri- and even multilateral work plans on appropriate issues;

c) to advance harmonized information management between the conventions, most notably in terms of national reporting and the sharing of lessons learned-type information;

d) to introduce international mechanisms to allow for joint work programming and information sharing between the governing bodies, scientific bodies and secretariats of the Agenda 21-related conventions;

e) to see Parties implementing all aspects of the Ramsar *Guidelines for International Cooperation*;

f) to see the Ramsar Convention used increasingly as an instrument for developing

cooperative management arrangements for States that share wetlands (coastal and inland water ecosystems) and water resources more broadly;

g) to promote and encourage the development in other regions of MedWet-type multi-lateral arrangements for implementing the Ramsar Convention;

h) to see the trend of eligible Parties accessing GEF funds for wetland conservation and wise use projects continue, and grow;

i) to see all Parties developing even more rigorous national mechanisms to ensure the close coordination, and even integration as appropriate, in their implementation of the UNCED-related conventions; and

j) to see the Ramsar Convention fully recognized by the Rio+10 Conference as an important 'tool' for advancing the implementation of Agenda 21.

Policy review and recommended 'course corrections' for Rio +10

250. Among the tools which exist to assist Governments and local stakeholders in pursuing environmental protection, sustainable use of natural resources, and sustainable development is the range of multilateral conventions. These represent a suite of mechanisms, each with different scopes and scales, but nonetheless, they are linked by a common theme of sustainable use of our natural assets. Ideally, these conventions would together offer an integrated package for implementing Agenda 21; however, the common anecdotal feedback from Parties is that they fall short of offering that at present, and this is in itself is a major challenge for Rio+10. Some of the major weaknesses identified by Parties are as follows:

a) a failure to fully document and demonstrate the ways these conventions should operate as an integrated whole, to show the linkages among them and the areas of common interest, and a failure to explain in clear and concise terms the science which underpins these linkages and mandates integrated approaches;

b) a lack of coordination among the multilateral conventions in terms of policy development, science and technology, information management and administration;

c) the burden imposed by the independent reporting requirements under each convention; and

d) the problem of achieving equitable representation of developed and developing countries in the negotiations, working and scientific meetings and Conferences of the Parties.

251. As Agenda 21 so strongly states, gaining the support and direct involvement of the major groups within civil society has to be a priority if we are to witness sustainable development happening on the ground. A key to gaining that support and involvement is in education and public awareness, so that stakeholders are better informed and made aware of unsustainable practices. One of the challenges which Rio+10 is urged to take up is that of documenting and demonstrating the fundamental science behind the global ecosystem, how it is being broken down, and why. Within this context, it is important to then articulate the specific role, or roles, of each convention, how they link – in an ecosystem sense – and how they link operationally.

252. Rio+10 should also support the advice of the Ramsar Convention in promoting the concept of 'demonstration' sites to show how these various international conventions can be implemented in an integrated way to deliver sustainable development. There remains a healthy skepticism among local

communities that these high-level instruments can be manifested into tangible outcomes for them. 'Demonstration' sites that show how this can be done would provide an enormous boost for the aspirations of Agenda 21.

253. The general lack of coordination between the multilateral conventions in terms of policy development, science and technology, information management and administration is a major concern, though this has gained some attention over the past few years, and we are now seeing Memoranda of Cooperation and Understanding being put into place between conventions on a bilateral basis. As described in this section, Ramsar's Joint Work Plan with CBD is considered the model for advancing inter-convention collaboration.

254. Despite these recent efforts, the process of creating a more integrated working 'team' of conventions requires acceleration, and Rio+10 could be the catalyst for this. Ramsar proposes the following as significant first steps to achieving these more efficient and effective working arrangements between conventions.

- Taking the idea contained in Chapter 38 of Agenda 21 regarding a high-level inter-agency coordination mechanism (paragraphs 38.16-18), establish an international coordinating and information sharing mechanism between the UNCED-related and other conventions, which can assist with developing common programmes of work, harmonizing and cross-linking agendas, improved scheduling of conferences of the Parties, meetings of subsidiary scientific meetings, etc.;
- Establish a 'chairs of subsidiary scientific bodies working group' for the UNCED-21 and other conventions to encourage cross-fertilization of ideas and the sharing of information and expertise.
- Continue to move toward seamless and harmonized information management systems for all UNCED-related and other conventions, as advocated by the World Conservation Monitoring Centre's report of 1999 for the biodiversity-related conventions (see section 8.2), and ensure that this also includes the Climate Change and Desertification Conventions;
- Promote the further development of bilateral, trilateral or multilateral Memoranda of Cooperation, with associated Joint Work Plans, between conventions, and (as recommended above) include as part of these 'demonstration' projects showing integrated delivery of UNCED-related and other conventions.

259. The burden imposed by the independent reporting requirements under each Convention is also a major issue, especially for developing countries, and warrants attention by Rio +10. The WCMC Report on harmonizing information management between the biodiversity-related conventions referred to above proposes measures to streamline national reporting, and these require urgent attention. There have been some recent innovations in this area which also deserve consideration, most notably the move by CBD, Ramsar and others to reduce reporting requirements to a minimum, and Ramsar's conversion of its triennial national report format into a national planning and monitoring tool for ongoing use by Parties as an implementation tool. However, the bottom line is that if these conventions are to form an integrated matrix for implementing Agenda 21, then it must be possible to design a single national reporting format to meet the expectations of all conventions.

260. The problem of ensuring that all Parties can participate fully in the workings and deliberations of the international conventions is not a new issue. Regrettably no solution has yet been found to this problem, which continues to leave developing countries disadvantaged. Some of the actions recommended above, such as better coordination of meeting schedules, more integrated work programmes, simplified and streamlined national reporting, etc., would serve to reduce the burden on developing countries and for this reason deserve high priority. Experience has also shown that participation by developing countries in Conferences of the Parties and subsidiary scientific bodies is

generally constrained by lack of resources. If equity is to be ensured in these important international discussions, this matter needs to be addressed.

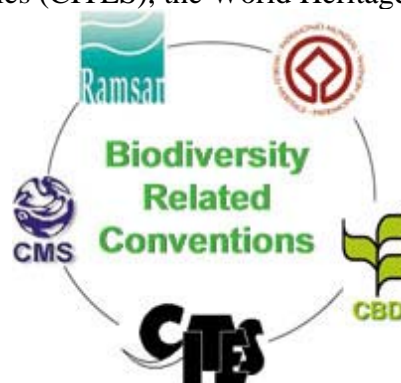
262. Perhaps the greatest impediment to achieving sustainable development in most countries is the difficulty of breaking down the barriers between sectors – sectors within civil society, and sectors within government. The challenge for Agenda 21 was to find mechanisms to break those barriers down – and this challenge remains for Rio+10 to address. Without a strong move to achieve a more collaborative and integrated implementation of the UNCED-related and other relevant conventions, it is difficult to foresee national administrations, and even local stakeholders, being encouraged to think more holistically about the management of natural resources.

263. Agenda 21 is about looking at natural resource management issues and challenges from the perspective of long-term sustainability – to have social, economic and environmental concerns taken fully into consideration. The proliferation of conventions and treaties, if not well coordinated, runs the serious risk of creating a whole new set of ‘sectors’ which decision-makers and other stakeholders must contend with.

264. If the conventions can reach a point where they are being implemented as a well coordinated and integrated whole, it will almost certainly flow down to the regional, national, and local levels. Addressing this weakness in the global mechanisms of sustainable development must be a priority of Rio+10. In conjunction with these actions at the international level, if Parties were to review, and reform as necessary, their national institutional and programmatic arrangements for implementing the UNCED-related and other conventions with sustainable development mandates, it would assist in advancing the cause of sustainable development that much sooner.

Information box 31 - Towards harmonized information management systems for the biodiversity-related conventions

In 1998, the secretariats of the so-called biodiversity-related conventions – the Convention on Biological Diversity, the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species (CITES), the World Heritage Convention and the Convention on Migratory Species with the United Nations Environment Programme – engaged the World Conservation Monitoring Centre to undertake a study to identify options for more harmonized information management. The report of this project entitled "*Feasibility study for the harmonized information management infrastructure for biodiversity-related treaties*" was completed in 1999. The study found there exist several areas where opportunities exist for such harmonization to occur – these include areas such as the Web sites of each convention, in the glossaries of terms and taxonomic systematics used, in national reporting, and in the sharing of ‘lessons learned-type’ information. The WCMC report was considered by Ramsar’s 7th Conference of Parties which gave it strong endorsement and urged the Ramsar Bureau (secretariat) to continue to support the follow-up actions proposed by WCMC (Resolution VII.4). The Ramsar Conference also urged that the secretariats of the Conventions on Desertification and Climate Change be invited to join the project, as well as the Bern Convention on the Conservation of European Wildlife and Natural Habitats.



As the first steps in implementing the recommendations of the WCMC report, a joint entry point and common search engine have been established between the Convention

Web sites. In late 2000 a workshop was held in the United Kingdom to consider ways of taking forward the proposed harmonized approach to national reporting.

Information box 32 – Wetlands – Reservoirs of biodiversity

- Freshwater wetlands hold more than 40% of the world's species and 12% of all animal species.
- Wetlands support spectacular concentrations of wetland-dependent wildlife, such as the more than 2 million shorebirds visiting both the Banc d'Arguin National Park in Mauritania and the Wadden Sea in northern Europe, or the 30,000 black lechwe antelope that inhabit the Bengweulu Basin in Zambia. They also support charismatic species such as the hippopotamus, shoebill stork, and jaguar. Wetlands may be individually recognized for their endemic species – such as Lake Tanganyika, with 1,470 animal species, 632 of which are found in that lake only, and the Amazon river which boasts 1,800 species of endemic fish.
- Coral reefs rival tropical rainforests in terms of biological diversity; they may contain 25% of all marine species. Reefs hold an estimated 4,000 species of fish and 800 species of reef-building corals; total number of species associated with reefs may be over one million.
- Wetland biodiversity is a significant reservoir of genes that has considerable economic potential in the pharmaceutical industry and in commercial crop plants such as rice, a common wetland plant and the staple diet for over half the world's population. Wild rice continues to be an invaluable source of new genetic material for developing disease resistance, yet many different varieties of rice have disappeared in recent years – leaving us dependent on a shrinking genetic base.

Information box 33

2nd Joint Work Plan 2000-2001 of the Convention on Biological Diversity and the Convention on Wetlands

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Information box 34 - Desertification and wetlands

"Desertification and wetlands are intrinsically linked. Desertification threatens the functioning of many wetlands and their role in providing the vital "life-blood" of water. Maintaining, and where possible rehabilitating these wetlands – and particularly those in drylands – can contribute much to ameliorating the impacts of desertification and the increasing demands for scarce water resources". From the intervention made by the Secretary General of the Ramsar Convention, Mr Delmar Blasco, at CCDs 4th Conference of Parties, Germany, December 2000.

Information box 35 - Lake Chad Basin Commission

The Presidents of Chad, Niger, and Nigeria, and high-level representatives of the Presidents of Cameroon and the Central Africa Republic met on 28 July 2000 in N'Djamena for the 10th summit meeting of the Lake Chad Basin Commission (LCBC), with the President of Sudan participating as an observer, and took a major step forward in ensuring a sustainable future for Lake Chad and its large catchment. Forty thousand Swiss Franc grants have recently been awarded, or are planned, from the World Wide Fund for Nature's (WWF) Living Waters Campaign, to each of the Commission's Member States to assist in the designation of related Ramsar sites in each. A Global Environment Facility (GEF) project has been approved specifically for Ramsar designation and an appropriate management plan for Lake Chad and its basin. The LCBC Heads of State agreed a Final Communique welcoming the Ramsar, WWF, and GEF initiatives, calling for further donor support, and stating their intention to designate all of Lake Chad as a transboundary Ramsar site as soon as the relevant studies can be completed.

Information box 36 - Regional cooperation on transboundary basins: the challenge for Africa

Water and its prudent management is the key to reversing the downward spiral in human welfare in Africa which has been caused by a combination of rapid population growth, stagnating per capita food production, and accelerating environmental degradation across the continent. One of the major challenges in the management of water resources facing African countries is the need for regional cooperation on transboundary water basins:

- Africa has over 50 significant water basins spanning nearly all the countries;

- about 40% of the land area in Africa falls within transboundary basins;
- approximately 75% of total water resources of the continent are concentrated in eight major river basins (the Congo, Niger, Ogoague (Gabon), Zambezi, Nile, Sanga, Chari-Logone and Volta);
- for 14 countries, practically their entire national territories fall within shared river basins;
- in Sub-Saharan Africa, international river basins constitute the principal source of water resources and 35 countries in the region share the 17 major river basins.

While these statistics highlight the need for regional cooperation on transboundary basins, very few countries in the region have some kind of cooperative arrangements for development of common water resources. Even the existing basin institutions have been constrained by some or all of the following: (a) absence of a clearly designated and mandated agency to act on behalf of the riparian countries; (b) technical and managerial weaknesses at the level of the secretariat of the basin authorities; (c) inadequate funding by member States of the basin authorities; (d) inability to mobilise external funds for pre-investment studies and for investment; and (e) politicization of the selection of key personnel.

While these can be considered the underlying problems of existing institutions, the most serious problem is the total absence of common cooperative mechanisms which would permit countries to address the development of transboundary water resources for socio-economic development of riparian countries on an integrated and equitable basis. This problem pervades a large portion of the continent and remains a serious impediment to water resources development.

Full text of the case study 'Some problems and constraints in integrated water resources management in Africa' by S.M.K. Donkor and Yilma E. Wolde, United Nations Economic Commission for Africa, is available from the Ramsar Convention Bureau's Web site: http://ramsar.org/wurc_index.htm.

From: Ramsar Wise Handbook 4, "Integrating wetland conservation and wise use into river basin management", Case Study 7

Information box 37 - MedWet

An international initiative for Mediterranean wetlands

Wetlands of the Mediterranean Basin have always been characteristic elements of the landscape, providing a livelihood to many people in the form of fishing, water use, grazing lands, recreation and hunting, and playing a vital role in their cultural life. Yet extensive degradation of these wetlands has occurred throughout history through human activities, and continues today at an accelerated pace. While fewer people are directly dependent on the wetlands than in previous centuries, these ecosystems continue to play a significant social and economic role in the region and are valuable reservoirs of biological diversity.

During the 1970s and 1980s, the realization was steadily growing that the human pressures on Mediterranean wetlands were reaching critical levels, with almost 50% losses during the 20th century. At the closing session of a symposium on *Managing Mediterranean Wetlands and their Birds*, in Grado, Italy, in 1991, Professor Edward T. Hollis and Dr Luc Hoffman challenged the participants to put their words into action, effectively precipitating the birth of the MedWet Initiative.

MedWet today represents a collaboration of all the governments of the region and the Palestinian Authority, as well as the European Commission, the Barcelona, Berne and Ramsar Conventions, and international NGOs and wetland centres. Their ambitious goal is to stop and reverse the loss and degradation of Mediterranean wetlands. Under the guidance of the Mediterranean Wetlands Committee (MedCom) of the Convention on Wetlands, and with funding from the European Commission, the MAVA Foundation, WWF and others (including recently GEF and FFEM), the Initiative has developed methods and tools for managing and conserving Mediterranean wetlands. These have made full use of the extensive technical and scientific knowledge and expertise available throughout this very diverse region.

Besides the Ramsar MedWet Coordinator, three institutions participate in the MedWet team, whose main purpose is the implementation of the Mediterranean Wetlands Strategy. Although they are involved in a range of other conservation activities, they are committed to achieving this long-term goal through technical work and ensuring effective communication and collaboration between the different members and partners of MedWet/Com. More specifically:

- The Tour du Valat Biological Station in the Camargue, France, develops and manages projects for the Initiative, and is a focal point in the region for research results, wetland training and developing wetland management practices.
- The Greek Biotope/Wetland Centre (EKBY) in Thessaloniki, Greece, provides secretariat services and disseminates information about the Initiative through the MedWet Web site (<http://www.medwet.gr/>) and through regular newsletters and technical reports. EKBY is the focal point for wetland mapping, restoration and rehabilitation.
- Sede para el estudio de los humedales mediterráneos (SEHUMED), based at València University in Spain, develops and manages specific projects on the wise use of wetland resources and tourism. It is the focal point on water pollution, water quality and the sustainable use of wetland resources.

During 2001, a MedWet Coordination Unit will be established in Athens, Greece, financed by the Greek Government and co-located with the Coordinating Unit of the Mediterranean Action Plan of the Barcelona Convention.

Of particular importance to Contracting Parties is the extensive list of publications produced through the Initiative. While specifically written for Mediterranean wetlands, many have a broader relevance and are valuable resource materials for all wetland managers and decision-makers. The scope of MedWet publications ranges from *Mediterranean wetlands at the dawn of the 21st century* (which presents an overview of the current issues, solutions and actions required), to reference manuals on inventory and monitoring, publications on training, information and public awareness, and a practical, seven-part series on the conservation of Mediterranean wetlands.

The work done on wetland inventories and especially the MedWet Database 2000 has raised the interest of a number of countries beyond the Mediterranean. In recognition of these and other MedWet tools, the MedWet Initiative has been endorsed as a model for regional collaboration within the Convention on Wetlands through COP7 Resolution VII.22: *Collaborative structure for Mediterranean Wetlands*.

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Tel: +30 1 36 00 711 4; E-mail: thymiop@hol.gr Web site: <http://www.medwet.gr/>

Information box 38 - Article 5 of the Ramsar Convention – offers Agenda 21 a well established mechanism for international cooperation, especially in relation to freshwater management.

"The Contracting Parties shall consult each other about the Convention and especially in the case of wetlands extending over the territories of more than one Contracting Party or where the water system is shared by Contracting Parties. They shall at the same time endeavour to coordinate and support present and future policies and regulations concerning the conservation of wetlands and their flora and fauna."



For further information about the Ramsar Convention on Wetlands, please contact the **Ramsar Convention Bureau**, Rue Mauverney 28, CH-1196 Gland, Switzerland (tel +41 22 999 0170, fax +41 22 999 0169, e-mail ramsar@ramsar.org). Posted 4 March 2001, Dwight Peck, Ramsar.

