"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Regional Categorization of countries under the Convention, and composition, roles and responsibilities of the Standing Committee, including tasks of Standing Committee members

1. RECALLING the Resolution on the Establishment of a Standing Committee adopted by 3rd Meeting of the Conference of the Contracting Parties (COP) in 1987;

2. RECALLING ALSO Action 8.1.3 of the Strategic Plan 1997-2002 adopted by Resolution VI.14 of COP6, which reads: "*Review and if necessary redefine the responsibilities and possible financial needs of the Standing Committee prior to the 7th COP (1999)";* as well as Action 8.1.2, which reads: "*Keep under review the regional representation in the Standing Committee as the number of Contracting Parties increases*";

3. CONSIDERING it useful for the effective functioning of the Convention that Contracting Parties should have a clear process for creating appropriate regional groups;

THE CONFERENCE OF THE PARTIES

4. DECIDES that the Ramsar Convention shall have the following regional groups:

    1. Africa
    2. Asia
    3. Neotropics
    4. Europe
    5. North America
    6. Oceania

5. FURTHER DECIDES that Contracting Parties and those countries that are eligible to join the Convention are assigned to the above regional groups, but that those Contracting Parties which are near to the boundaries of the allocated region, as given in Annex 1, can at their own request, based on the existence of similar natural conditions, participate[1] within an alternative region, while remaining a member of their geographical region, upon formal notification of this intent to the COP, provided that the preconditions for this request are not objected to by the Scientific and Technical Review Panel;

[1] "Participate" is defined in this context as different from membership within the alternative region. Participation confers to the state the right to be present in meetings, to speak, to exchange information, to submit reports, to cooperate on a scientific and practical level, to contribute to joint projects. It does not include the right to be a representative of this alternative region nor to participate in the nomination of its representative(s). It does not confer the right to vote within the alternative region.

6. DECIDES to introduce a proportional system for the composition of the Standing Committee, by which each regional group in paragraph 4 above will be represented by voting members in the Standing Committee according to the following criteria:

    a) one representative for regional groups with 1 to 12 Contracting Parties,
    b) two representatives for regional groups with 13 to 24 Contracting Parties,
    c) three representatives for regional groups with 25 to 36 Contracting Parties,
    d) four representatives for regional groups with 37 to 48 Contracting Parties,
    e) five representatives for regional groups with 49 to 60 Contracting Parties.

7. FURTHER DECIDES that the host countries of the most recent and the next meeting of the COP are also voting members of the Standing Committee;

8. DECIDES ALSO that the regional representatives shall be elected by the Conference of the Contracting Parties on the basis of nominations received from the regional groups established in paragraph 4 above;

9. DETERMINES that the terms of office of the regional representatives shall commence at the close of the meeting of the COP at which they have been elected and shall expire at the close of the next ordinary meeting of the COP, and that each Contracting Party may serve on the Committee for a maximum of two consecutive terms;

10. REQUESTS Contracting Parties that are voting members of the Standing Committee to convey to the Ramsar Bureau, through their diplomatic channels, the name of the officer(s) in the designated national Ramsar Administrative Authority who act as their delegates on the Standing Committee, as well as the name of their substitutes, should they be needed;

11. DECIDES that the Contracting Party which hosts the Bureau of the Convention and the Contracting Party which hosts the International Office of Wetlands International shall continue to have the status of Permanent Observers in the Standing Committee;

12. DETERMINES that the Ramsar Bureau shall continue to notify all Contracting Parties of the date and agenda of meetings of the Standing Committee at least three months in advance of each meeting, so that they may, as appropriate, make arrangements to be represented at the meeting as observers;

13. FURTHER DETERMINES that countries which are not Contracting Parties but have expressed an interest in joining the Convention may be also admitted as observers at meetings of the Standing Committee;

14. RESOLVES that the Chairperson of the Scientific and Technical Review Panel shall be invited as an observer to Standing Committee meetings, as well as other experts and/or institutions that the Standing Committee may deem appropriate for assisting in its consideration of particular agenda items;

15. FURTHER RESOLVES that international organizations which are official International Organization Partners in the work of the Convention shall be invited to participate as observers in meetings of the Standing Committee;

16. DECIDES that if an extraordinary meeting of the COP is held between two ordinary meetings, the host country shall participate as an observer in the work of the Committee on matters related to the organization of the meeting, provided that the country in question is not already present in the Committee as a member or permanent observer;

17. RECOMMENDS that the Contracting Parties in regional groups with one representative in the Standing Committee use a rotation system for the nomination of the regional representative, and that in regional groups with two or more representatives the selection be made in such a manner as to achieve a balance in relation to biogeographical, geopolitical, and cultural considerations;

18. DECIDES that at its first meeting immediately after the close of the COP the Standing Committee shall elect its Chair and Vice-Chair, as well as the members and chair of the Subgroup on Finance established by Resolution VI.17 of COP6;

19. FURTHER DECIDES that the Standing Committee shall meet at least once each year, normally at the seat of the Convention Bureau. The costs of participation of Committee members from developing countries and countries with economies in transition shall be borne by the Convention;

20. DETERMINES that within the policy agreed by the Conference of the Contracting Parties, the functions of the Standing Committee shall be to:

    a) carry out, between one ordinary meeting of the Conference of the Contracting Parties and the next, such interim activity on behalf of the Conference as may be necessary, giving priority to matters on which the Conference has previously recorded its approval;

    b) make preparations on issues, including *inter alia* draft Resolutions and Recommendations, for consideration at the next meeting of the Conference of the Contracting Parties;

    c) supervise, as a representative of the Conference of the Contracting Parties, the implementation of policy by the Ramsar Bureau, the execution of the Bureau's budget, and conduct of the Bureau's programmes;

    d) provide guidance and advice to the Ramsar Bureau on the implementation of the Convention, on the preparation of meetings, and on any other matters relating to the exercise of its functions brought to it by the Bureau;

    e) act as Conference Committee at meetings of the Conference of the Contracting Parties in accordance with the Rules of Procedure;

    f) establish subgroups as necessary to facilitate the carrying out of its functions;

    g) promote regional and international cooperation for the conservation and wise use of wetlands;

    h) submit proposals to the COP for the election of members of the Scientific and Technical Review Panel (STRP);

i) approve the work plan of the STRP on the basis of the decisions of the COP, receive the reports of the STRP on the progress made with its implementation, and provide guidance for its future development;

j) adopt for each triennium the Operational Guidelines for the Small Grants Fund for Wetlands Conservation and Wise Use and decide on the allocation of funds;

k) review each triennium the criteria for and select the laureates of the Ramsar Wetland Conservation Award established by Resolution VI.18;

l) report to the Conference of the Contracting Parties on the activities it has carried out between ordinary meetings of the Conference.

21. DETERMINES that the tasks of the regional representatives elected to serve in the Standing Committee shall be those contained in Annex II of this resolution;

22. DECIDES that the Standing Committee, as a subsidiary body of the Conference of the Parties, shall be governed, *mutatis mutandis*, by the Rules of Procedure for meetings of the Conference.

Annex I

Allocation of Contracting Parties and non-Contracting Parties to the six Ramsar regional groups

NOTE: Names of countries in capital and bold letters denote Contracting Parties to the Convention at the time of approval of this Resolution.

1. AFRICA

ALGERIA
Angola
Benin
BOTSWANA
BURKINA FASO
Burundi
Cameroon
Cape Verde
Central African Republic
CHAD
COMOROS
CONGO
CÔTE D'IVOIRE
DEMOCRATIC REPUBLIC OF THE CONGO
Djibouti
EGYPT
Equatorial Guinea
Eritrea
Ethiopia
GABON
GAMBIA
GHANA
GUINEA
GUINEA-BISSAU
KENYA
Lesotho
Liberia
Libyan Arab Jamahiriya
MADAGASCAR
MALAWI
MALI
MAURITANIA
Mauritius
MOROCCO
Mozambique
NAMIBIA
NIGER
Nigeria
Rwanda
Sao Tome and Principe
SENEGAL
Seychelles
Sierra Leone
Somalia
SOUTH AFRICA
Sudan
Swaziland
TOGO
TUNISIA
UGANDA
United Republic of Tanzania
ZAMBIA
Zimbabwe

2. ASIA

Afghanistan
Azerbaijan
BAHRAIN
BANGLADESH
Bhutan
Brunei Darussalam
Cambodia
CHINA
Democratic People's Republic of Korea
INDIA
INDONESIA
IRAN, ISLAMIC REPUBLIC OF
Iraq
ISRAEL
JAPAN
JORDAN
Kazakhstan
Kuwait
Kyrgyzstan
Lao People's Democratic Republic
Lebanon
MALAYSIA
Maldives
MONGOLIA
Myanmar
NEPAL
Oman
PAKISTAN
PHILIPPINES
Qatar
REPUBLIC OF KOREA
Saudi Arabia
Singapore
SRI LANKA
SYRIAN ARAB REPUBLIC
Tajikistan
THAILAND
Turkmenistan
United Arab Emirates
Uzbekistan
VIETNAM
Yemen

3. NEOTROPICS

Antigua and Barbuda
ARGENTINA
BAHAMAS
Barbados
BELIZE
BOLIVIA
BRAZIL
CHILE
COLOMBIA
COSTA RICA
Cuba
Dominica
Dominican Republic
ECUADOR
El Salvador
Grenada
GUATEMALA
Guyana
Haiti
HONDURAS
JAMAICA
NICARAGUA
PANAMA
PARAGUAY
PERU
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
SURINAME
TRINIDAD AND TOBAGO
URUGUAY
VENEZUELA

4. EUROPE

ALBANIA
Andorra
ARMENIA
AUSTRIA
Belarus
BELGIUM
Bosnia & Herzegovina
BULGARIA
CROATIA
Cyprus
CZECH REPUBLIC
DENMARK
ESTONIA
FINLAND
FRANCE
GEORGIA
GERMANY
GREECE
Holy See
HUNGARY
ICELAND
IRELAND
ITALY
LATVIA
LIECHTENSTEIN
LITHUANIA
LUXEMBOURG
MALTA
MONACO
NETHERLANDS
NORWAY
POLAND
PORTUGAL
Republic of Moldova
ROMANIA
RUSSIAN FEDERATION
San Marino
SLOVAK REPUBLIC
SLOVENIA
SPAIN
SWEDEN
SWITZERLAND
THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA
TURKEY
UKRAINE
UNITED KINGDOM
YUGOSLAVIA

5. NORTH AMERICA

CANADA
MEXICO
UNITED STATES OF AMERICA

6. OCEANIA

AUSTRALIA
Cook Islands
Fiji
Kiribati
Marshall Islands
Micronesia (Federated States of)
Nauru
NEW ZEALAND
Niue
Palau
PAPUA NEW GUINEA
Samoa
Solomon Islands
Tonga
Tuvalu
Vanuatu

Annex II

Tasks of Contracting Parties elected as Regional Representatives in the Standing Committee

The Contracting Parties that have accepted to be elected as Regional Representatives on the Standing Committee shall have the following tasks:

1. To designate their delegates to the Standing Committee taking into account their significant responsibilities as Regional Representatives, according to paragraph 10 of this resolution, and to make every effort that their delegates or their substitutes attend all meetings of the Committee.

2. When there is more than one Regional Representative in a regional group, to maintain regular contacts and consultations with the other regional representative(s).

3. To maintain regular contacts and consultations with the Contracting Parties in their regional group, and to use the opportunities of travel within their regions and of attending regional or international meetings to consult about issues related to the Convention and to promote its objectives. To this effect, when there is more than one regional representative, they shall agree among themselves which Contracting Parties will be the responsibility of each regional representative.

4. To canvass the opinions of the Contracting Parties in their regional group before meetings of the Standing Committee.

5. To advise the Bureau in setting the agenda of regional meetings.

6. To assume additional responsibilities by serving as members of the subgroups established by the Standing Committee.

7. To provide advice as requested by the Chairperson and/or the chairs of subgroups and/or the Bureau of the Convention.

8. In the regions concerned, to make deliberate efforts to encourage other countries to join the Convention.

Resolution VII.2

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Composition and *modus operandi* of the Convention's Scientific and Technical Review Panel (STRP)

1. RECALLING the establishment by Resolution 5.5 of the Scientific and Technical Review Panel (STRP), made up of members with appropriate scientific and technical knowledge, appointed by the Conference of the Contracting Parties (COP), but participating as individuals and not as representatives of their countries of origin;

2. ALSO RECALLING Resolution VI.7 on this matter;

3. THANKING the members and alternates of the STRP for their contributions since COP6, and their expert advice on several scientific and technical issues important for implementation of the Convention;

4. EMPHASIZING THE NEED for establishing a close link between the STRP and the network of scientists and experts in each Contracting Party, so that the Convention may benefit from the array of existing knowledge and experience;

5. RECOGNIZING the importance for the STRP to work in partnership with the equivalent bodies of those Conventions with which a Memorandum of Understanding or Cooperation is in place, namely the Convention on Biological Diversity, the Convention on Migratory Species, and the Convention to Combat Desertification; and

6. ALSO RECOGNIZING the desirability of cooperation between the STRP and a number of expert networks, specialist groups and societies which exist, some in association with the official International Organization Partners of the Convention;

THE CONFERENCE OF THE CONTRACTING PARTIES

7. REAFFIRMS in general the terms of Resolution 5.5 and repeals Resolution VI.7;

8. DECIDES TO INTRODUCE the following modifications in the *modus operandi* and composition of the STRP:

   a) invites each Contracting Party to nominate by the end of October 1999 a suitably qualified technical expert from that country to act as a focal point for STRP matters and, as appropriate, to provide input to the work of the STRP either directly or through liaison with other suitably qualified experts;

b) urges the members of the STRP to establish and maintain contact with these national focal points appointed by each Contracting Party within their respective Ramsar regions, to seek their advice and input as required;

c) invites each official International Organization Partner of the Convention to designate a representative to participate as a member of the STRP and to liaise with their relevant expert networks or specialist groups to provide the necessary expertise and advice to STRP in undertaking its work plan;

d) invites the following bodies and organizations to participate as observers in the meetings of the STRP and to consider establishing close working cooperative arrangements on matters of common interest:

- the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity
- the Scientific Council of the Convention on Migratory Species
- the Committee on Science and Technology of the Convention to Combat Desertification
- 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;

9. FURTHER EMPHASIZES the value of participation by STRP members in meetings of the COP and Standing Committee, and requests Contracting Parties, the Standing Committee, and the Ramsar Bureau to do their utmost to secure any additional funding which might be necessary for this purpose;

10. REQUESTS the Standing Committee, at its annual meeting, to define the principal tasks and approve the work plan for the STRP in the coming year, taking into account the views expressed and priorities established by the Contracting Parties at the previous meeting of the COP;

11. RECOMMENDS that the composition of the STRP reflect the different biogeographical characteristics within each Ramsar region;

12. DECIDES that the membership of the STRP shall have the same regional structure as the Standing Committee, as established in Resolution VII.1 of this meeting; and that the same proportional system as the Standing Committee will apply for determining its composition;

13. URGES that, in order to attain equitable representation on the STRP, as of COP8 members of the STRP ought, as far as possible, to come from Contracting Parties different from those Parties elected to the Standing Committee;

14. DECIDES that for the Oceania and North America regions there shall be one substitute member to ensure regional representation at meetings of the STRP in the event that the single member is unavailable to attend;

15. FURTHER DECIDES that membership of the STRP from the close of COP7 until the end of COP8 shall be those recommended by the Standing Committee on the basis of proposals submitted by Contracting Parties, as follows:

AFRICA
Dr Aboubacar Awaiss, Republic of Niger
Mr Geoff Cowan, South Africa
Dr Harry Chabwela, Zambia

ASIA
Dr Mohammad Rashid Shatanawi, Jordan
Dr Angel C. Alcala, Philippines

EUROPE
Dr Jan Pokorny, Czech Republic
Professor Toomas Saat, Estonia
Dr George Zalidis, Greece
Dr Peter Maitland, United Kingdom

NEOTROPICS
Dr Yara Schaeffer Novelli, Brazil
Dr Jorge Jimenez, Costa Rica

NORTH AMERICA
Dr Arthur Hawkins, USA
Substitute – Dr Randy Milton, Canada

OCEANIA
Dr Max Finlayson, Australia
Substitute – Ms Bronwen Golder, New Zealand

Resolution VII.3

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Partnerships with international organizations

1. CONSIDERING that a number of international non-governmental organizations (INGOs) played a significant role in the inception of the Convention and that they have been instrumental in the development and application of the treaty over the years;

2. RECOGNIZING FULLY the important contribution that BirdLife International, IUCN - The World Conservation Union, Wetlands International, and the World Wide Fund for Nature (WWF) continue to make to the implementation of the Convention in their capacity as International NGO Partners of the Convention;

3. AWARE that the status of "International NGO Partner" emerged as a consequence of the historical relationship between the above-mentioned INGOs with the Convention, though it was never formalized through a decision of the Conference of the Contracting Parties; and

4. FURTHER AWARE that other international organizations, both intergovernmental and non-governmental, have the potential of contributing to the Mission of the Convention as stated in the Strategic Plan 1997-2002, which reads: "*The Convention's mission is the conservation and wise use of wetlands by national action and international cooperation as a means to achieving sustainable development throughout the world*";

THE CONFERENCE OF THE CONTRACTING PARTIES

5. ADOPTS the attached rules for conferring the status of International Organization Partner of the Convention to organizations that meet the criteria established in those rules;

6. FORMALLY CONFIRMS this status for the following organizations: BirdLife International, IUCN-The World Conservation Union, Wetlands International, and the World Wide Fund for Nature;

7. DECIDES that international organizations interested in formal recognition as Partners to the Convention should present an application to the Convention's Bureau for its inclusion in the agenda of the next meeting of the Standing Committee, which in turn shall make a recommendation to the Conference of the Contracting Parties for final decision; and

8. FURTHER DECIDES that the performance of International Organization Partners vis-à-vis the Convention may be reviewed from time to time by the Conference of the Contracting Parties on the basis of a report submitted by the Standing Committee when deemed necessary.

Annex

Rules for conferring the status of International Organization Partner of the Convention on Wetlands

1. International organizations, both intergovernmental and non-governmental, formally recognized as Partners of the Convention on Wetlands by its Conference of the Contracting Parties will be expected to contribute on a regular basis and to the best of their abilities to the further development of the policies and technical and scientific tools of the Convention and to their application.

2. Partners shall be invited to participate in an observer capacity and as advisors in all activities of the Convention, including the meetings of the Conference of Contracting Parties, the Standing Committee, and the Scientific and Technical Review Panel, as well as regional and subregional meetings.

3. Partners may also be invited, if required, to contribute to the evaluation of project proposals, project implementation, and the evaluation of project results, as well as to participate in the development of policy and technical and/or scientific instruments for the application of the Convention.

4. Thus, the status of Partner shall be conferred to international intergovernmental and non-governmental organizations taking into account the following characteristics:

    4.1. Have a programme of activities that is global or at least covers many countries in one or more regions of the world.

    4.2. Have a statement of purpose that explicitly, or by clear implication, includes the conservation and sustainable use of wetlands.

    4.3. Have a track record of experience in providing support to and/or implementing on-the-ground projects that contribute to wetland conservation and sustainable use.

    4.4. Have demonstrated experience in implementing partnership ventures such as training and education, technical and/or scientific expertise, policy development, and/or evaluation and assessment, particularly where such ventures would bring new and additional benefits to the functioning of the Ramsar partnership.

    4.5. Have a positive reputation for being willing and able to cooperate with national and international bodies, including both governmental and non-governmental ones.

    4.6. Have stated their readiness to actively contribute on a regular basis to the further development of the policies and tools of the Convention on Wetlands and their application on the ground, particularly by assisting Contracting Parties to meet their obligations under the Convention.

4.7. Are prepared to sign a Memorandum of Cooperation with the Bureau of the Convention, where the partnership agreement should be spelt out fully.

Resolution VII.4

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Partnerships and cooperation with other Conventions, including harmonized information management infrastructures

1. RECALLING Operational Objective 7.2 of the Strategic Plan 1997-2002 which identifies a range of actions to strengthen and formalize linkages with other international and/or regional environment Conventions;

2. RECALLING IN PARTICULAR Action 7.2.1 of the Strategic Plan 1997-2002 which instructs the Standing Committee and the Ramsar Bureau to "*participate in, or initiate, consultations with related conventions to foster information exchange and cooperation, and develop an agenda for potential joint actions*";

3. NOTING the benefits to be gained from synergy and integrated implementation, where appropriate, of environment-related conventions, at all levels: global, regional, national and local;

4. NOTING WITH PLEASURE Decision IV/15 of the 4th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) on cooperation with other biodiversity-related conventions which "*endorses the Joint Work Plan with the Convention on Wetlands . . . as a framework for enhanced cooperation between these conventions and encourages its implementation*";

5. NOTING ALSO Decision IV/4 of CBD's COP4 relating to the conservation of the biological diversity of inland water ecosystems, which urged Contracting Parties, when requesting support from the Global Environment Facility, to give priority to a) identifying inland water ecosystems taking into account the Ramsar criteria for Wetlands of International Importance, b) preparing and implementing integrated watershed, catchment and river basin management plans for these, and c) investigating the processes contributing to the loss of biological diversity of inland water ecosystems;

6. WELCOMING Decisions IV/5 and IV/10 of CBD COP4 relating to marine and coastal biodiversity and impact assessment, respectively, and the joint actions and collaboration in these fields which they propose;

7. ALSO WELCOMING the actions proposed by the Ramsar Bureau to develop appropriate joint actions with the Convention on Migratory Species and to open dialogue with the secretariat of the United Nations Framework Convention on Climate Change to progress future cooperation;

8. ACKNOWLEDGING WITH APPROVAL the Memorandum of Cooperation between the Ramsar Convention Bureau and the Secretariat of the Convention to Combat Desertification signed on 5 December 1998, and also the Memorandum of Understanding between the Ramsar Bureau and UNESCO's World Heritage Centre as signed at this COP; and

9. CONVINCED of the advantages to be gained from harmonising the information gathering and handling activities of the international and regional environment-related conventions, and having considered the recommendations in this regard contained in the report prepared by the World Conservation Monitoring Centre (WCMC) entitled "*Feasibility study for a harmonised information management infrastructure for the biodiversity-related treaties***";**

THE CONFERENCE OF THE CONTRACTING PARTIES

10. ENDORSES the Joint Work Plan with the Convention on Biological Diversity (CBD) as appended in Annex I, and instructs the Ramsar Bureau, as resources allow, to give priority to its implementation in the forthcoming triennium;

11. ENDORSES IN PARTICULAR the proposed collaboration and cooperation between the Ramsar Convention and the CBD in the areas of inland water ecosystems, marine and coastal biodiversity, impact assessment and incentive measures;

12. URGES eligible Contracting Parties of both the Ramsar Convention and the CBD to develop projects suitable for consideration by the Global Environment Facility, in accordance with paragraphs 6 and 7 of Decision IV/4 of CBD's COP4, relating to inland water ecosystems and communicate details of progress on these to the Ramsar Bureau;

13. REQUESTS the Ramsar Bureau to give priority in its programme of work for the next triennium, as resources allow, to the development of joint actions with the Convention on Migratory Species (CMS), the implementation of the Memoranda of Cooperation signed with the Secretariat of the Convention to Combat Desertification (CCD) and the World Heritage Centre (WHC), as appended in Annexes II and III respectively, and the development of a Memorandum of Cooperation with the United Nations Framework Convention on Climate Change (UNFCCC);

14. CALLS UPON the Contracting Parties to the above Conventions to take into consideration the Joint Work Plan with CBD, and the Memoranda of Understanding and Cooperation in place with the CMS, CCD and WHC, respectively, to strengthen their internal, regional, and international mechanisms and policy instruments so as to enhance the coordinated implementation of these treaties, where appropriate, so that wetland conservation and wise use can be considered within the broader frameworks of environmental management and sustainable development;

15. DIRECTS the Ramsar Scientific and Technical Review Panel (STRP), in accordance with Resolution VII.2 and the availability of funds and human resources, to exchange information, cooperate and coordinate activities, where appropriate, with the equivalent expert bodies of the CBD, CMS, CCD and relevant regional fora, and to report, through the Standing Committee, to the 8th Conference of the Contracting Parties on the results of such actions;

16. REQUESTS the Ramsar Bureau to continue its participation in the implementation of the recommendations contained in the WCMC report on harmonising information management among the environment-related Conventions, and in particular to assist, where resources permit, the proposed pilot testing of a streamlined approach to National Report preparations as suggested in Section 5.2 of the report;

17. FURTHER REQUESTS the Ramsar Bureau to encourage the involvement of the secretariats of CCD, UNFCCC, and the Bern Convention on the Conservation of European Wildlife and Natural Habitats in the implementation of the recommendations contained in the WCMC report on harmonising information management, taking into account the initiatives within the CBD Clearing-House Mechanism; and

18. ALSO REQUESTS the Ramsar Bureau to explore developing partnerships, including joint work plans if appropriate, with the Apia Convention on the Conservation of Nature in the South Pacific and the subsequent Noumea Convention for the Protection of the Natural Resources and Environment of the South Pacific, and the Cartagena Convention on the Protection and Development of the Marine Environment of the Wider Caribbean, to extend participation in the Ramsar Convention by small island developing states.

Addenda

Annex I - Joint Work Plan with the Convention on Biological Diversity (CBD)
Annex II - Memorandum of Cooperation with the Convention to Combat Desertification (CCD)
Annex III – Memorandum of Understanding with UNESCO's World Heritage Centre (WHC)

Resolution VII.5

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Critical evaluation of the Ramsar Small Grants Fund for Wetlands Conservation and Wise Use (SGF) and its future operations

1. RECALLING Resolution 4.3 establishing the Wetland Conservation Fund (WCF), and Resolution 5.8 on future funding and operation of the WCF;

2. RECALLING ALSO Resolution VI.6 which renamed the WCF the Ramsar Small Grants Fund for Wetland Conservation and Wise Use (Ramsar SGF), further reviewed its operation, and made a recommendation on its level of funding;

3. NOTING that Action 8.4.2 of the Strategic Plan 1997-2002 directed that for COP7 the performance of the SGF should undergo a critical evaluation, and that this was to be prepared by the Ramsar Bureau, reviewed by the Standing Committee at its 21st meeting in 1998, and transmitted to this meeting of the Conference of the Contracting Parties;

4. NOTING WITH PLEASURE that since its inception in 1991 the SGF has provided funding for 113 small projects in 72 developing countries and countries in transition for a total amount of SFR 3,815,821;

5. EXPRESSING ITS SINCERE APPRECIATION to those Contracting Parties and organizations that have made voluntary contributions to complement the core budget allocation to the SGF;

6. NOTING WITH CONCERN that the level of funding at the disposal of the SGF has not been sufficient to fund another 122 valuable projects that were submitted by eligible Contracting Parties, and that a renewed effort is required to attract greater financial support with longer term guarantees for the Fund;

7. COMMENDING the Ramsar Bureau for its various initiatives to improve the assessment processes, administration and monitoring of projects supported by the SGF, as well as for its fundraising efforts for the Fund; and

8. CONCERNED that some recipients of SGF funds have failed to meet their obligations in terms of reporting on progress and final project outcomes, at all, or in a timely manner;

THE CONFERENCE OF THE CONTRACTING PARTIES

9. EXPRESSES its conviction that the critical review submitted to Ramsar COP7 of the first nine years of operation of the Ramsar Small Grants Fund for Wetlands Conservation and

Wise Use (Ramsar SGF) demonstrates that this mechanism continues to be extremely valuable for facilitating the implementation of the Convention in developing countries and countries in transition;

10. REITERATES its conviction expressed in Resolutions 5.8 and VI.6 that the level of resources available to the Ramsar SGF should be increased to at least US$ 1 million annually;

11. URGES that a mechanism be developed for receiving commitments of contributions to the SGF, if possible for a three-year period at a time, and REQUESTS the Contracting Parties that will chair the Standing Committee and the Subgroup on Finance of the Standing Committee in the next triennium to seek to initiate this mechanism, with the assistance of the Ramsar Bureau and the Standing Committee as a whole;

12. DIRECTS that in future years the Ramsar Bureau offer, as availability of funds and human resources allow, an advisory service to those countries wishing to seek advice and assistance with project preparations, and that, in order to do this, proponents be invited to submit draft project proposals to the Bureau by 31 January each year so that advice can be provided prior to the formal submission of projects by 31 March;

13. DECIDES that in future years the Standing Committee should make funding for new projects conditional upon satisfactory compliance with reporting requirements for previous grants to the same country under the Fund;

14. ALSO DECIDES that in order to improve project monitoring and evaluation, in future years the following modifications to the *modus operandi* of the SGF should apply:

    a. the Ramsar Bureau's annual Work Programmes should include an allocation of staff time to SGF project follow-up and evaluation, including visiting project sites and meetings with those responsible for project implementation, when travelling to countries which have received SGF funding;

    b. the Administrative Authorities within recipient countries should be encouraged to monitor progress and evaluate final reports under the SGF using the Project Evaluation Form; and

    c. further to b. above, as appropriate, the Administrative Authorities should consider involving the National Focal Point for the Convention's Scientific and Technical Review Panel (STRP) (Resolution VII.2) in SGF project monitoring and evaluation;

15. FURTHER DIRECTS the Ramsar Bureau to increase its efforts, as availability of funds and human resources allow, to provide more detailed and more regular feedback to donors, relying mostly on the project evaluations as they are submitted; to establish a dedicated area on the Convention's Web site for SGF matters; and to use this area to display project summaries and other promotional materials as they are received; and

16. AUTHORIZES the Standing Committee to continue to evaluate the functioning of the Fund as prescribed in Resolution VI.6, including the mechanisms for deciding on grant allocations and for project monitoring and evaluation, and to implement any changes in functioning which it considers necessary; and REQUESTS the Standing Committee to

report on the results of this evaluation to Ramsar COP8. This evaluation should take into account the possibility that the management of the SGF could be entrusted to by one of the Convention's International Organization Partners.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Guidelines for developing and implementing National Wetland Policies

1. RECALLING Article 3.1 of the Convention, which states that Contracting Parties "*shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory*";

2. FURTHER RECALLING Recommendation 4.10 and Resolution 5.6, and their annexes, which provide *Guidelines for the implementation of the wise use concept* and *Additional guidance for the implementation of the wise use concept* respectively, and, in particular, urged Contracting Parties to develop and apply National Wetland Policies as an important step towards achieving the wise use of wetlands;

3. AWARE that Recommendation 6.9 called for the production of a framework for developing and implementing National Wetland Policies and an analysis of the status of wetland policies worldwide;

4. ALSO AWARE that Operational Objective 2.1, Action 2.1.2, of the Strategic Plan 1997-2002 urged Contracting Parties, the Ramsar Bureau, and Partner Organizations to "*promote much greater efforts to develop national wetland policies, either separately or as a clearly identifiable component of other national conservation planning initiatives*";

5. NOTING WITH PLEASURE the advice given in the National Reports to this Conference of the Contracting Parties that 77 Parties have National Wetland Policies or Strategies in place or under development;

6. FURTHER NOTING that Technical Session II of this Conference, on National Planning for Wetland Conservation and Wise Use, had presented to it and considered in detail the annex to this decision entitled *Guidelines for developing and implementing National Wetland Policies*;

7. RECOGNIZING that the development of policies and related initiatives may require efforts to build capacity where human, technical and financial resources need to be augmented; and

8. EXPRESSING ITS THANKS to the authors of the annex to this Resolution for providing their combined advice, based on experience, so that Contracting Parties preparing or considering the preparation of such Policies can finalise or undertake the task with improved efficiency and effectiveness;

THE CONFERENCE OF THE CONTRACTING PARTIES

9. ADOPTS as guidance for the Contracting Parties the annex to this Resolution entitled *Guidelines for developing and implementing National Wetland Policies* and URGES those Parties that have yet to develop such Policies to give this activity their highest attention;

10. URGES Contracting Parties to note and apply with equal vigour the related guidance provided as an annex to Resolution VII.7, *Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands*, aware of the close relationship between policy instruments and legislation;

11. ENCOURAGES Contracting Parties to recognise the benefits of incorporating into National Wetland Policies appropriate measures to ensure that wetland restoration is given priority consideration in the administration of programmes and government expenditure, and in the promotion of local actions to rehabilitate degraded wetlands;

12. ALSO ENCOURAGES Contracting Parties to integrate into their National Wetland Policies, wherever possible, the elements of the other guidance adopted under the Convention such the *Guidelines for the implementation of the wise use concept* (Recommendation 4.10) and *Additional guidance for the implementatioin of the wise use concept* (Resolution 5.6), the *Guidelines for management planning for Ramsar sites and other wetlands* (Resolution 5.7), the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19), and the Convention's Outreach Programme (Resolution VII.9), having regard also to Resolutions VII.16 on impact assessment and VII.15 on incentives; and

13. FURTHER URGES, in accordance with the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19), Contracting Parties with experience in the development and implementation of National Wetland Policies to promote opportunities for the sharing of this knowledge and experience with other Ramsar Parties initiating such a process.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands

1. RECALLING Recommendation 4.10 and Resolution 5.6, and their annexes, which provide *Guidelines for the implementation of the wise use concept* and *Additional guidance for the implementation of the wise use concept* respectively;

2. FURTHER RECALLING that the Wise Use Guidelines and Operational Objective 2.1, Action 2.1.1 of the Strategic Plan 1997-2002 urge Contracting Parties to undertake reviews of legislation and practices to ensure that they are acting to assist the implementation of the Convention and wise use;

3. NOTING the advice given in the National Reports to this Conference of the Contracting Parties that 45 Parties have undertaken reviews of legislation and institutions to ensure that they are promoting wetland conservation and wise use;

4. FURTHER NOTING that Technical Session II on National Planning for Wetland Conservation and Wise Use during this meeting of the Conference of the Contracting Parties had presented to it, and considered in detail, the annex to this decision entitled *Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands*; and

5. EXPRESSING its appreciation to IUCN's Environmental Law Programme, and in particular to the authors of the cases studies and annex to this Resolution, for providing their combined advice and guidance, based on their experiences, so that Contracting Parties are equipped with specific guidelines to assist them undertake reviews of legislation and institutions relating to wetlands;

THE CONFERENCE OF THE CONTRACTING PARTIES

6. ADOPTS as guidance for the Contracting Parties the annex to this Resolution entitled *Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands*, and URGES those Parties that have yet to undertake such reviews to give this activity their highest priority;

7. URGES Contracting Parties to note and apply with equal vigour the related guidance provided as an annex to Resolution VII.6, *Guidelines for developing and implementing National Wetland Policies,* aware of the close relationship between policy instruments and legislation;

8. ENCOURAGES those Contracting Parties undertaking or planning to undertake reviews of their laws and institutions to ensure that these not only aim to remove constraints to

conservation and on the implementation of wise use, but also seek to introduce positive incentive measures to support the effective application of the wise use obligation;

9. ALSO ENCOURAGES Contracting Parties to integrate into their National Wetland Policies or equivalent instruments, wherever possible, the elements of the other guidance for member states adopted under the Convention such the *Guidelines for the implementation of the wise use concept* (Recommendation 4.10) and *Additional guidance for the implementation of the wise use concept* (Resolution 5.6), the *Guidelines for management planning for Ramsar sites and other wetlands* (Resolution 5.7), the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19), and the Convention's Outreach Programme (Resolution VII.9); and

10. FURTHER URGES development assistance agencies to give priority to supporting projects which will result in the application of these annexed Guidelines and resultant reviews of the laws and institutions in developing countries and those in economic transition.

Annex

Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands

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3.3 Recommend legal and institutional changes necessary to support conservation and wise use

§1.0 The purpose of a legal and institutional review

1. The Conference of the Parties (COP) to the Ramsar Convention has adopted guidance on appropriate legal and institutional frameworks for wise use[1], and this issue has also been included in the Ramsar Strategic Plan 1997-2002[2]. These instruments urge each Contracting Party to develop national wetland policies to support wise use and to address all problems and activities related to wetlands in a national context. Wetland policies may be separate or may form a clearly-identifiable component of other planning processes (e.g., national environmental action plans or national biodiversity strategies and action plans)[3].

2. As part of this long-term policy development process, the COP has specifically called on each Party to review its legal and institutional frameworks to ensure that these are generally compatible with the wise use obligation. The review should cover laws and institutions not only at the national level, but also at the sub-national and supra-national (i.e., regional economic integration organizations)[4] levels. These technical guidelines are intended to provide practical support for carrying out such a review.

3. The review process can help Parties to take stock of how existing laws and institutions contribute to or work against wetland conservation and wise use. This should contribute to a more rationalised approach to their achievement. The review has two main objectives:

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[1] *Guidelines on the wise use of wetlands* (Recommendation 3.3); *Guidelines for the implementation of the wise use concept* (Recommendation 4.10); *Additional guidance for the implementation of the wise use concept* (Resolution 5.6).
[2] Adopted at the 6th Meeting of the COP, Brisbane 1996.
[3] See *Guidelines for developing and implementing National Wetland Policies* (Resolution VII.6).
[4] Operational Objective 2.1, Strategic Plan.

- to identify legal and institutional measures which constrain wetland conservation and wise use; and
- to support the development of positive legal and institutional measures for wetland conservation and wise use.

4. The information collected for the review should provide useful data for national reports by Parties to the COP[5]. Wherever possible, the review should be repeated at regular intervals to ensure that laws and institutions remain compatible with the wise use obligation established under Article 3.1 of the Convention.

5. The review could have two basic phases carried out in a way appropriate to the circumstances of the Party concerned: (1) a preparatory phase (see Section 2.0) and (2) an implementation phase (see Section 3.0).

§2.0 Preparing for the legal and institutional review

§2.1 Establish political and institutional responsibility for the review

6. The COP has formally endorsed the use of legal and institutional reviews as an integral part of wise use planning. Consequently, Parties should give high-level political support to preparing, implementing and acting upon the review.

7. National Wetland Committees, inter-ministerial commissions or other coordinating bodies[6] for wetland issues are particularly well placed to take responsibility for and supervise the review, as well as for considering subsequent recommendations by the review team (see Section 2.2). Where such a body does not exist, Parties might consider establishing an inter-agency steering committee to ensure that all relevant governmental sectors are represented during the review.

8. In Parties with a federal or decentralised system of government, political responsibility for the review will depend on which tier of government has jurisdiction over wetlands and wetland resources (including migratory species). In several countries, jurisdiction is divided between national and sub-national authorities; in others, it is almost completely devolved to sub-national level; in others, local authorities have extensive powers over wetland management and decision-making.

9. In Parties where jurisdiction over wetlands is devolved to sub-national level, it may be appropriate for the competent administrative authorities at that level to conduct their own review. However, to ensure consistency with applicable national policies and laws, it would be useful to harmonise nationally the review procedures.

§2.2 Establish the review team

10. The review team has operational responsibility for the review and reports to the institution designated under Section 2.1. An effective team is likely to be characterised by commitment, objectivity and broad representation and expertise.

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[5] Action 2.1.1 of the Ramsar Strategic Plan calls on Parties to indicate in their reports how the *Wise Use Guidelines* are applied.

[6] The establishment of such bodies is recommended in section I.1.2), *Additional guidance on wise use.*

11. Membership of the team will depend on each Party's particular circumstances and capacity. In some countries, an appropriate team may already have been established to develop a national wetland policy or be provided by an established cross-sectoral Ramsar/wetlands committee. While the team should include at least one person with legal expertise, other disciplines might be considered, including:

    - Planners and economists;
    - Technical representation from hydrologists, biologists, ecologists and other relevant disciplines; and
    - Representatives of the private sector and the general public, specifically including indigenous and local communities[7].

    Team members should have detailed knowledge of how the country's laws and institutions, including those which are customary, operate both in theory and in practice.

§2.3 Define the review methodology

12. The review team is responsible for defining the methodology for the review, in other words, how each stage of the review will be undertaken and within what time-frame; for assigning specific responsibilities to team members; and for determining the scope of the review.

13. During this preparatory phase, it is important that members of the review team reach a common understanding for the purposes of the review of what is meant by "wetland" in the country concerned[8].

14. Figure 1 gives one example of a possible methodology for carrying out the review. It depicts the review as an ongoing (cyclical) process with three basic stages: (1) establishing a knowledge base of relevant laws and institutions; (2) evaluating the knowledge base established; and (3) recommending necessary legal and institutional changes to promote wetland conservation and wise use.

15. Parties may choose to begin the review at different stages within this cycle, depending upon their national situation. For example, some countries already have an established scientific, legal and institutional knowledge base from developing National Wetland Policies or implementing cross-sectoral planning obligations pursuant to the Convention on Biological Diversity (1992) or the Convention to Combat Desertification (1994). Other countries may recently have carried out a review for the purpose of codifying legislation or drafting modern environmental statutes.

§3.0 Carrying out the legal and institutional review

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[7] C.f. para.12, *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8).

[8] Some countries do not have an agreed legal definition of wetlands. The Convention's broad definition (Art.2.1). applies to inland and coastal wetlands: "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".

16. Once the preparatory phase has been completed, the review team can carry out the legal and institutional review using its chosen methodology. The following sections describe the three stages of the review process in greater detail.

§3.1 Establish a knowledge base of relevant legal and institutional measures

17. A key responsibility of the review team is to create a comprehensive collection or knowledge base of the country's law and institutional measures which are relevant to wetlands. The content of the knowledge base will depend on national circumstances, and therefore each country's knowledge base will be unique.

18. Many different sources of law can contribute to creating the knowledge base. In general, these govern the procedures, decisions and actions of public bodies and the rights and duties of the private sector, communities and individuals (see Figure 2 for a non-exhaustive list of possible sources). At the more formal end of the spectrum, statutes and implementing regulations provide the legal basis for regulatory powers, planning rules, public expenditures, taxation and economic measures for projects or activities which may positively or negatively affect wetlands. At the other end of the spectrum, customary laws may be the main source of law governing the rights and duties of indigenous and local communities with regard to wetland resources.

19. Information to establish the knowledge base may be readily available to the review team or may need to be commissioned. Useful sources might include reports, studies, policy documents and inventories that have been developed as part of a national wetland or broader environmental policy-making process. Other useful information may have been produced at local level for the purpose of a wetland management plan.

20. When establishing a knowledge base, it may be useful conceptually to divide relevant sources of law into two categories: (1) "Wetland-related" legal and institutional measures (see Section 3.1.1) and (2) Sectoral legal and institutional measures which directly or indirectly affect wetlands (see Section 3.1.2).

§3.1.1 Identify wetland-related legal and institutional measures

21. Wetland-related legal and institutional measures are those which directly promote conservation and wise use of wetlands, including those directly supporting the implementation of the Ramsar Convention. All Parties have some form of environmental legislation and administration which is or can be used to support wetland conservation and wise use, although relatively few have enacted special wetland laws. Depending on the country, conservation and wise use measures may be contained in national and sub-national laws and regulations on environmental protection, nature conservation, protected areas, environmental impact assessment and audits, land-use planning, coastal management, water resource management or pollution control. At the local level, customary laws and community-based institutions may be relevant.

22. For purposes of subsequent analysis, it may be helpful to organize this component of the knowledge base according to the four categories set out in the *Additional guidance on wise use*: (1) non-site-specific measures; (2) site-specific measures; (3) jurisdictional and institutional coordination; and (4) mechanisms for transboundary and international cooperation (see

Figure 2). A non-exhaustive checklist of possible legal and institutional measures could include:

a) the legal instrument adopted to incorporate Ramsar into domestic law;
b) non-site specific or generally-applicable legal and institutional measures which promote wetland conservation and wise use (regulatory and non-regulatory measures) and/or confer special protective status on wetlands;
c) legal and institutional measures, including site-specific customary laws which promote the conservation and wise use of wetlands, and customary institutions which support this;
d) legal and institutional measures for integrated management of river basins, catchments, watersheds or coastal areas; international agreements for shared wetlands, watercourses or wetland flora and fauna; and
e) relevant legal and institutional measures adopted pursuant to other treaties or supra-national instruments.

23. The review team should identify which institutions and agencies have functional responsibility for wetland conservation and wise use, including transboundary wetland-related issues. In Parties with a federal or decentralised system of government, the team should clarify how jurisdiction over wetlands and wetland products is divided between national and sub-national government and whether there is any mechanism for coordination between the different levels.

§3.1.2 Identify sectoral legal and institutional measures which directly or indirectly affect wetlands

24. The key step to identifying sectoral legal and institutional measures which directly or indirectly affect wetlands is for the review team to determine which processes and categories of activities[9] contribute to the loss of wetland functions, values and benefits within the country. To do this, the review team can use existing scientific and policy reports, studies and inventories to determine the main threats to wetlands in the country concerned. Where these are not available the information may need to be commissioned.

25. Processes which modify the natural properties of wetlands may be broadly grouped into four categories:

a) loss or degradation of wetland area and landscape;
b) changes in the water regime (e.g., velocity, volume, seasonal flows, groundwater);
c) changes in water quality (e.g., pollution, eutrophication, sedimentation); and
d) over-exploitation or disturbance of wetlands and wetland products.

Processes of this kind are generated by human activities both inside and outside wetlands. Some types of human activity (e.g., drainage, pollution or urban encroachment) almost always generate processes damaging to wetlands, whether individually or on a cumulative basis. Other types of activity (e.g., fishing, agriculture or ecotourism) may be consistent with wise use within certain limits, but can generate damaging processes if they exceed the carrying capacity of the water system, coastal zone or wetland concerned.

[9] Note that the Convention on Biological Diversity requires Parties to identify and regulate or manage processes and categories of activities which adversely affect biological diversity (Article 7).

26. For purposes of subsequent analysis of this component of the knowledge base, the main processes associated with the loss and degradation of public and private wetlands on national territory or beyond national boundaries could be listed. Then, under each heading, the sectors responsible for activities contributing to the particular process could be listed along with the activities themselves. Relevant sectors may include agriculture, forestry, fisheries, public health, territorial development, energy, industry, investment, mining, navigation, tourism, trade and transport (see Figure 2). The information collected will provide a technical foundation from which the team can then identify, correlate and subsequently evaluate the legal and institutional basis for the particular activity identified.

§3.2 Evaluate the knowledge base

27. Once the review team has established a knowledge base (see Section 3.1), it can evaluate the legal and institutional measures identified in its two components. The key steps in the evaluation phase are to:

    a) assess the effectiveness of existing wetland-related legal and institutional measures in promoting wetland conservation and wise use; and
    b) analyse how sectoral legal and institutional measures directly or indirectly affect wetlands.

    The evaluation should help the team to determine the legal and institutional constraints on wetland conservation and wise use in the country. This determination is necessary before the team can develop recommendations for necessary legal or institutional changes (see Section 3.3 below).

28. The team may find it helpful to design a framework for the objective analysis of the legal and institutional measures identified. This could parallel and build upon the organizational frameworks suggested for the two components of the knowledge base in Sections 3.1.1 and 3.1.2.

29. While undertaking its evaluation, the review team needs to be mindful that laws and institutions have traditionally evolved in piecemeal fashion, with little cross-sectoral coordination and few references to wetlands. Therefore, it should be on the lookout for conflicts between wetland-related and sectoral legal and institutional measures which make it difficult to achieve wise use throughout a country, to implement cost-effective wetland policies, to regulate or manage potentially damaging activities, or to build long-term partnerships with wetland owners, users, local communities and the private sector.

30. As part of its evaluation, the review team should also be on the lookout for other legal and institutional measures which constrain efforts in achieving wetland conservation and wise use. These could include:

    a) conflicting sectoral policies, laws, taxes and institutional priorities;
    b) weak or incomplete laws applicable to wetlands (e.g., exclusion of coastal wetlands, no legal safeguards for water supply of appropriate quality and quantity);
    c) land tenure and resource use regimes which undermine wise use;
    d) poor design or operation of wetland administrative authorities;
    e) jurisdictional constraints on ecosystem management of river basins and coastal areas;

f) absence of effective monitoring procedures, enforcement and remedies; and
g) lack of provisions for compensation for lost wetland habitats or functions.

Gaps, overlaps and inconsistencies are all relevant to the evaluation and they should be described in the review.

§3.2.1 Assess the effectiveness of existing wetland-related legal and institutional measures in promoting wetland conservation and wise use

31. The review team needs to assess the effectiveness of existing wetland-related legal and institutional measures for promoting wetland conservation and wise use. Although conservation and wise use can be promoted in many ways, the Conference of the Parties has emphasized the fundamental importance of appropriate legal, policy, institutional and organizational measures for this purpose. The review team could use the *Wise Use Guidelines* as a starting point when evaluating the country's existing legal and institutional measures. It could also develop indicators of effectiveness adapted to national circumstances. A non-exhaustive list of issues for consideration is set out in paragraphs 32-35 below.

32. Possible considerations related to non-site specific measures could include:

a) Is the legal definition of wetlands or the scope of wetland-related legal and institutional measures sufficiently broad to apply to all categories of wetland covered by the Ramsar Convention?
b) Is it possible under land-use planning legislation (national, provincial or local) to confer protective status on wetlands and to limit urban, industrial and recreational development which might adversely affect wetland functions, values and benefits, including in a transboundary context?
c) Do principles, standards and techniques applicable to socio-economic activities, including environmental impact assessment rules, support the maintenance of wetland functions, values and benefits and incorporate a precautionary approach?
d) Is there a legal basis to encourage positive conservation measures and stewardship by wetland owners, users and non-governmental organizations (e.g., contracts, conservation easements or tax provisions)?
e) Where development involves wetland loss or degradation, is there a legal requirement to make monetary or other compensation, consistent with the polluter pays principle?
f) Are civil or administrative law remedies available to interested parties where wetlands are unlawfully destroyed or damaged?
g) Where wetland loss or degradation constitutes a criminal offence, are enforcement procedures adequate and are penalties set at a meaningful level?

33. Site-specific considerations could include:

a) Is the legal status conferred on Ramsar sites and wetland nature reserves sufficient to ensure their conservation and wise use?
b) Is it possible legally and institutionally to designate and manage coastal protected wetlands, even though they may include terrestrial and marine areas?

c) Where wetlands are designated as protected areas, does legislation authorise continued access and use by indigenous and local communities where this is consistent with the conservation and wise use of the particular site?
d) Is legislation supportive of customary laws, practices, tenure systems and institutions of indigenous and local communities, which promote sustainable use of wetland resources?
e) Do wetland users, including indigenous and local communities and other stakeholders, have the right to information, representation and participation in site management?
f) Does legislation support the preparation and implementation of wetland management plans?
g) Is there a legal requirement for wetland management bodies to be consulted about potentially damaging external activities?

34. Considerations related to jurisdictional and institutional coordination could include:

a) Do procedures exist for horizontal (cross-sectoral) coordination between wetland administrative authorities and relevant sectoral departments and agencies?
b) Do procedures exist for vertical coordination on conservation and wise use issues between different tiers of government, particularly in countries with federal or decentralised systems?
c) What, if any, steps have been taken to promote consistency between sectoral plans, policies and programmes and obligations related to wise (sustainable) use?
d) What legal and institutional measures have been taken to coordinate and integrate management of inland water systems (river basins, catchments, watersheds) and coastal areas?
e) Have legal and institutional measures been taken to involve stakeholders in wetland policy-making and wise use planning?
f) Do national or sub-national administrative authorities have adequate powers and human, technical and financial resources to implement wetland conservation and wise use programmes?

35. Possible transboundary and international cooperation considerations include:

a) Is there a legal and institutional basis for coordinated management of shared wetlands, international watercourses or wetland flora and fauna with one or more neighbouring countries? If so, could institutional coordination and joint management programmes be made more effective or extended in the future?
b) Have steps been taken under other international environmental agreements to develop bilateral or multilateral cooperation? If so, could these be used as a basis for strengthening coordinated international action on wetland and water resource issues?
c) Are procedures in place to ensure that foreign and domestic investment and development cooperation/aid programmes do not support activities which could damage wetlands and are fully compatible with the wise use obligation?

§3.2.2 Analyse how sectoral legal and institutional measures directly or indirectly affect wetlands

36. Sectoral legal and institutional measures that support processes and categories of activities identified under Section 3.1.2 will undermine effective implementation of the Ramsar

obligations. After identifying the processes and categories of activities threatening the country's wetlands and their legal and institutional basis, the review team should identify how these encourage the loss of wetlands.

37. The review team could be guided by the following questions:

a) Which provisions work directly against wise use (e.g., mandatory wetland drainage or financial and tax incentives for conversion)?
b) Which measures indirectly support wetland loss and degradation including through "perverse incentives" such as subsidies to develop coastal belts or flood plains?
c) Are wetland users, developers, and polluters obliged to meet the costs of wetland loss or degradation or to make compensation?
d) Are activities which could directly or indirectly affect wetlands subject to environmental impact assessment and are wetland considerations factored into the assessment process?
e) Do laws and regulations (including those on EIA) exempt certain categories of activities which adversely affect wetlands and water systems?
f) Are effective monitoring procedures, enforcement and remedies available?

§3.3 Recommend legal and institutional changes necessary to support wetland conservation and wise use

38. Once the review team has identified strengths and weaknesses of the country's legal and institutional framework, it may consider at least three types of recommendation as outputs of the review process.

39. First, and as a priority, the review team should recommend ways in which legal and institutional measures which contribute to the loss of wetlands can be better harmonised with conservation and wise use objectives. Or, if this is not possible, the review team should recommend the removal of these legal and institutional measures. Where this is impracticable in the short term, all possible steps should be taken to reduce progressively the impact of such measures.

40. Second, the review team should identify and recommend ways in which existing legal and institutional measures can be implemented more effectively without the need for new laws or regulations.

41. Third, the review team should identify and prioritise areas where laws and institutions should be upgraded or consolidated or where new legislative or economic instruments should be developed.

Figure 1: Carrying out a legal and institutional review

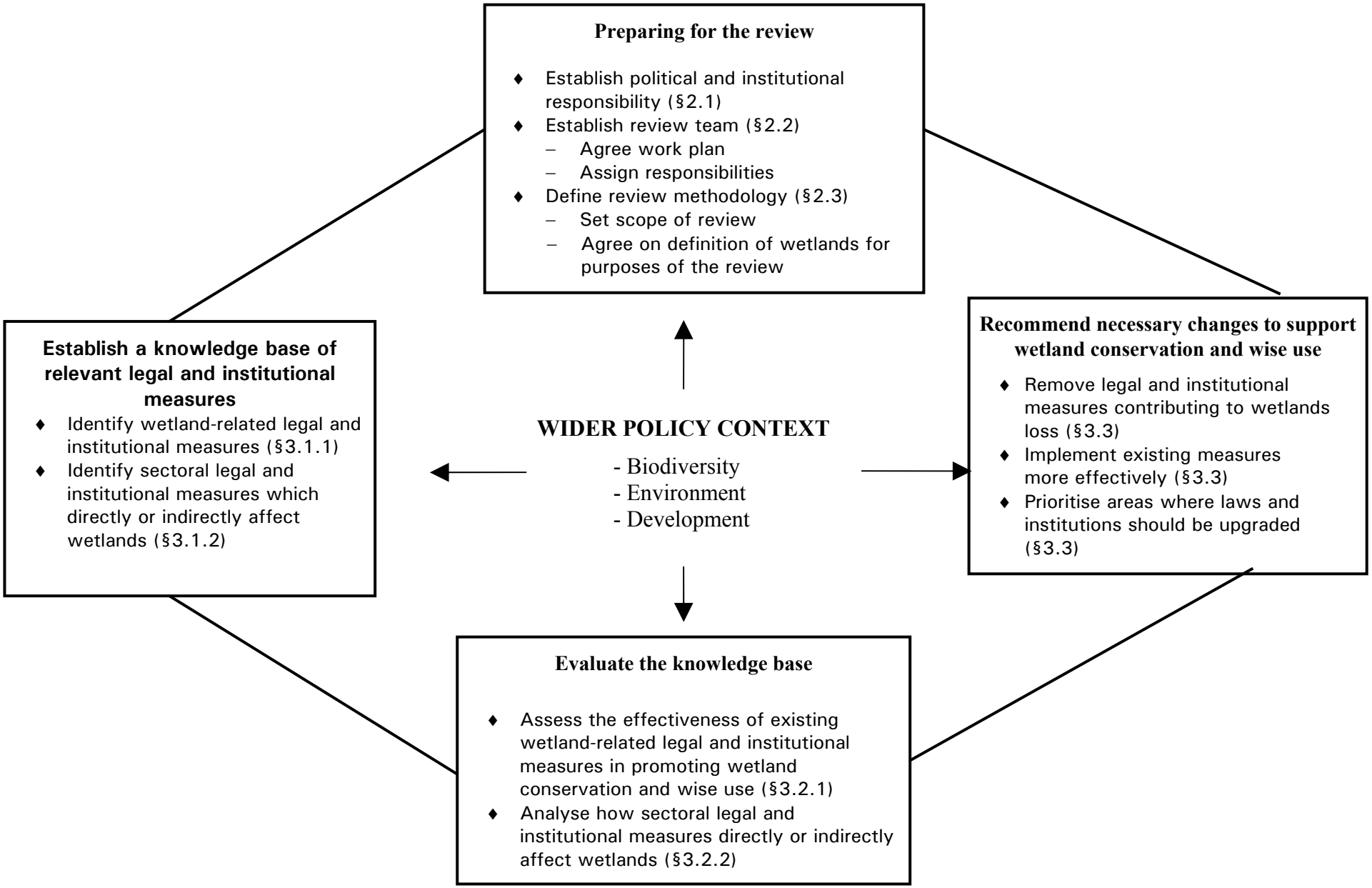
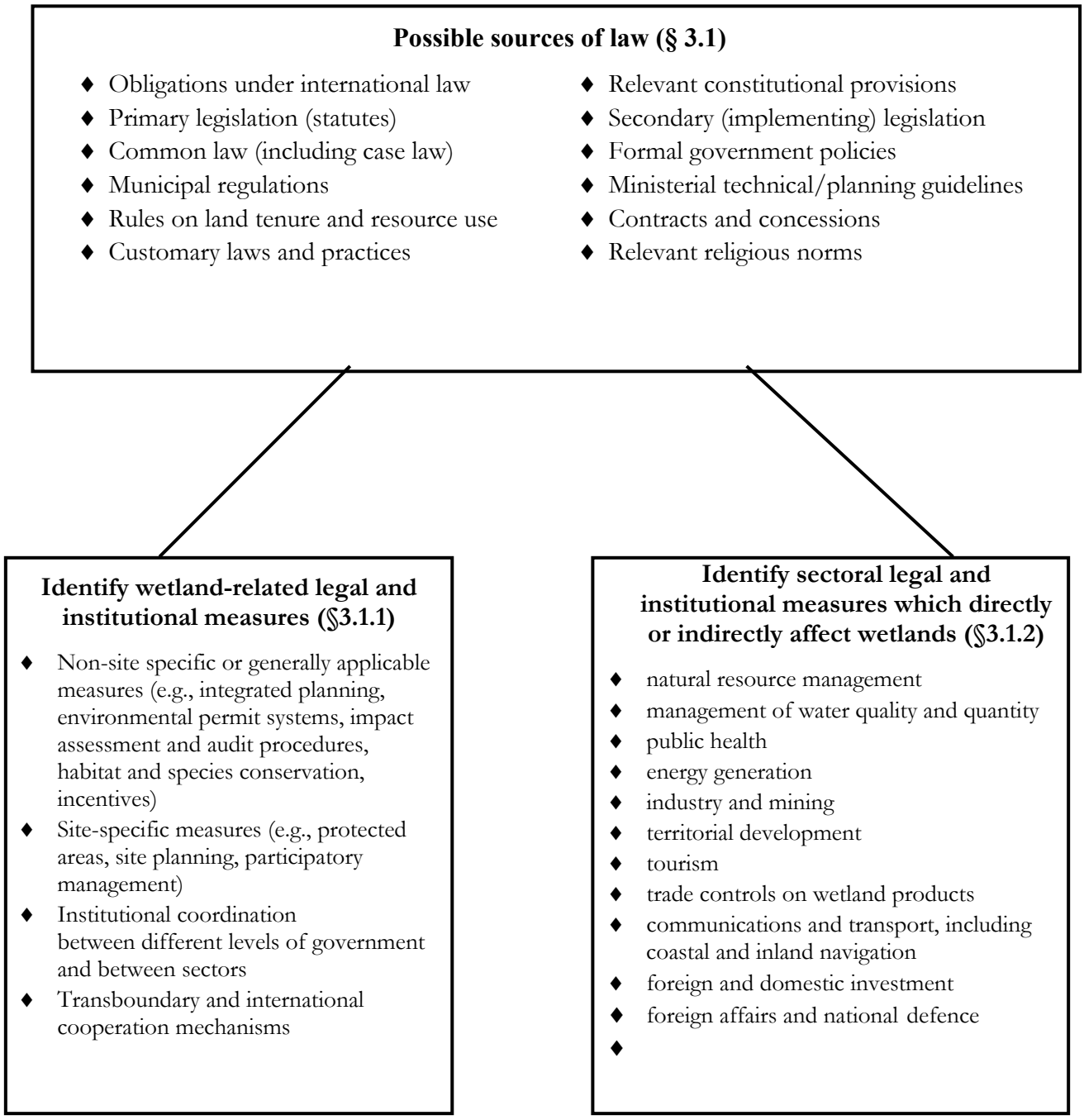


Figure 2: Establishing a knowledge base of relevant legal and institutional measures



Resolution VII.8

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands

1. RECALLING the *Guidelines for the implementation of the wise use concept* (Recommendation 4.10) and the *Additional guidance for the implementation of the wise use concept* (Resolution 5.6), which seek to encourage the involvement of local communities in the development of management plans for Ramsar sites and decision-making processes related to the wise use of wetlands;

2. AWARE of the relevant paragraphs of Resolution 1.51 of the World Conservation Congress in Montreal in 1996 in relation to indigenous people and the Narashino Statement from the International Wetland Symposium at the Yatsu-Higata Ramsar site in Japan in 1995, which called for active and informed participation by local people and communities in wetland management, and the United Nations Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-making, and Access to Justice in Environmental Matters adopted in Aarhus, Denmark, in June 1998;

3. AWARE of the International Labour Organization's Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries;

4. ALSO AWARE that in many contexts indigenous people and local communities are already involved in managing and using wetlands sustainably, and have long-standing rights, ancestral values, and traditional knowledge and institutions associated with their use of wetlands;

5. FURTHER RECALLING Recommendation 6.3 which in particular called on the Ramsar Bureau, in consultation with the World Wide Fund for Nature (WWF), the Kushiro International Wetlands Centre, the Caddo Lake Institute, IUCN - World Conservation Union, Contracting Parties, and other relevant NGOs, to evaluate the benefits of involving local and indigenous people in the management of wetlands and produce for consideration at this Conference guidelines on how the participatory approach can advance the adoption and application of the wise use principle of the Convention;

6. ACKNOWLEDGING that Operational Objective 2.7 from the Convention's Strategic Plan 1997-2002 describes actions intended to *"encourage active and informed participation of local communities, including indigenous people, and in particular women, in the conservation and wise use of wetlands*", including implementation of Recommendation 6.3;

7. NOTING that the case studies documented and analysed in preparing the Guidelines on how to implement the participatory approach have revealed that involving local stakeholders can accelerate the move towards achieving the Ramsar goal of wise use of wetlands in accordance with Article 3.1 of the Convention, when such participation is pursued within the full framework of actions encouraged by the Convention, and that the lessons learned from these case studies can assist Parties and others in fostering participatory approaches that avoid the mistakes encountered by others;

8. FURTHER NOTING that the theme of the 7th Meeting of the Conference of the Contracting Parties is *Wetlands and People - the vital link* and that Technical Session III of this Conference examined in detail the tools and mechanisms for promoting the involvement of local and indigenous people in wetland management;

9. ALSO NOTING that Technical Session III of this Conference considered and discussed the draft document prepared by IUCN - World Conservation Union, with the support of the Kushiro International Wetlands Centre, the Caddo Lake Institute, the World Wide Fund for Nature (WWF), and the Ramsar Bureau entitled *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands*; and

10. THANKING the Governments of Australia, Switzerland, and the United Kingdom for their financial support for the development of the draft Guidelines and the associated case studies*;*

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11. ADOPTS the *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* contained in the Annex to the present Resolution as further guidance to the Contracting Parties in the implementation of the wise use concept of the Convention and the Convention generally;

12. CALLS UPON Contracting Parties to apply these Guidelines so as to encourage active and informed participation, and the assumption of responsibility, by local communities and indigenous people in the management of Ramsar-listed sites and other wetlands and the implementation of the wise use principles at the local, watershed, and national levels;

13. FURTHER CALLS UPON Contracting Parties, when applying the Guidelines annexed to this Resolution, to give priority and special attention to involving women, youth and their representative organizations wherever and whenever possible;

14. URGES Contracting Parties to include extensive consultation with local communities and indigenous people in the formulation of national wetland policies and legislation and to ensure that these instruments, when introduced, include mechanisms consistent with the Annex to this Resolution, for actively engaging and involving the general community with implementation;

15. FURTHER URGES the Contracting Parties to create, as appropriate, the legal and policy context to facilitate indigenous people's and local communities' direct involvement in national and local decision-making for the sustainable use of wetlands, including the provision of necessary resources;

16. INVITES Contracting Parties to ensure that the stakeholders, including local communities and indigenous people, are represented on National Ramsar Committees or similar bodies, and that, where possible, these non-government stakeholders are represented in the national delegations to future meetings of the Conference of the Contracting Parties;

17. ENCOURAGES Contracting Parties to provide for transparency in decision-making with respect to wetlands and their conservation and ensure that there is full sharing with the stakeholders of technical and other information related to the selection of Ramsar sites and management of all wetlands, with guarantees of their full participation in the process;

18. FURTHER ENCOURAGES Contracting Parties, technical experts, and local and indigenous people to work together in the planning and management of wetlands to ensure that the best available science and local knowledge are taken into consideration in making decisions;

19. REQUESTS Contracting Parties to give priority to capacity building for the implementation of participatory approaches with special attention being given to the training of government administrators and local people in facilitation techniques, consultative processes, cultural sensitivity, and the application of the Ramsar Wise Use Guidelines;

20. INVITES Contracting Parties to seek, as appropriate, the involvement and assistance of indigenous people's and community-based groups, wetland education centres and non-governmental organizations with the necessary expertise to facilitate the establishment of participatory approaches;

21. REQUESTS Contracting Parties to recognise that in many cases financial mechanisms and incentives provide a catalyst for fostering participatory processes and should therefore gain priority consideration in efforts to promote the involvement of local communities and indigenous people;

22. URGES the bilateral and multilateral donor agencies supporting wetland conservation and wise use projects, and integrated water resource management projects in general, to take into consideration the Annex to this Resolution and the priorities for action at the national level identified herein;

23. DIRECTS the Ramsar Bureau to establish a clearing house, create a focal point, and liaise with other international organizations, including the secretariats of international conventions, for information exchange related to participatory approaches and indigenous knowledge systems in support of wetland management, and for information on training and other topics likely to be of use by the Parties in implementing this Resolution, as human and financial resources allow;

24. URGES the Ramsar Bureau and partners to further elaborate on these Guidelines by COP9 in the light of new experiences in establishing and strengthening participatory processes at Ramsar sites and other wetlands, utilizing the experience of International Organization Partners, indigenous people's and community-based groups; and

25. DECIDES that as part of the National Reports to be prepared for COP8, special attention will be given to reporting on significant efforts in implementation of these Guidelines, and

in particular on efforts to enhance the extent and effectiveness of involving local communities and indigenous people in wetland management.

Annex

Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands

I. Introduction

1. Community involvement and participation in management decision-making for sites included in the List of Wetlands of International Importance (Ramsar sites) and other wetlands have been recognised as essential throughout the history of the Ramsar Convention, but very little guidance on this topic is available to the Contracting Parties. In recognition of this, Recommendation 6.3 of Ramsar COP6 (1996) called upon the Contracting Parties "*to make specific efforts to encourage active and informed participation of local and indigenous people at Ramsar listed sites and other wetlands and their catchments, and their direct involvement, through appropriate mechanisms, in wetland management*", and assigned the Bureau of the Convention (secretariat), working with IUCN-The World Conservation Union, the World Wide Fund for Nature, Caddo Lake Institute (USA) and Kushiro International Wetlands Center (Japan), the task of commissioning case studies and developing guidelines to assist the Contracting Parties in such efforts.

2. These guidelines were conceived with the premise that local and indigenous people's involvement in wetland management can substantially contribute to effective management practices that further Ramsar's wise use objectives. As defined by Ramsar COP3 (1987), 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.*" Evidence from the 23 commissioned case studies and other experiences in participatory management indicates that local and indigenous people's involvement can, if carried out within the full framework of actions encouraged by the Convention, contribute significantly to maintaining or restoring the ecological integrity of wetlands, as well as contributing to community well-being and more equitable access to resources. In practical terms, the Ramsar Convention concept of "wise use" is equivalent to "sustainable use".

3 These guidelines are intended to assist Contracting Parties in involving local and indigenous people in wetland management in a manner that furthers the wise use objectives of the Convention.

4. Experience has shown that it is advisable to involve local and indigenous people in a management partnership when:

   a. the active commitment and collaboration of stakeholders are essential for the management of a wetland (e.g., when the wetland is inhabited or privately owned);
   b. access to the natural resources within the wetland is essential for local livelihood, security and cultural heritage; and
   c. local and indigenous people express a strong interest in being involved in management.

5. The case for local and indigenous people's involvement is even stronger when:

   a. local stakeholders have historically enjoyed customary/legal rights over the wetland;
   b. local interests are strongly affected by the way in which the wetland is managed;
   c. decisions to be taken are complex or controversial (e.g., different values need to be harmonised or there is disagreement on the ownership status of the land or natural resources);
   d. the existing management regime has failed to produce wise use;
   e. stakeholders are ready to collaborate and request to do so; and
   f. there is sufficient time to negotiate among stakeholders in advance of management decisions being made.

6. It is not possible to provide a definitive list of criteria that will guarantee successful establishment of local and indigenous people's involvement. The breadth of the term "involvement" (from consultation to devolution of management authority) and the variety of local contexts means that there are few if any prerequisites to establishing participatory management. One consistent factor, however, is the possession of beliefs and values that support the Ramsar concept of "sustainable utilization".

7. Involvement of local and indigenous people in resource management falls within the general resource management approach known as ***participatory management***. Terms such as collaborative management, co-management, or joint management are more or less synonymous.

8. In the context of these guidelines, ***stakeholders*** are taken to be bearers of separate interests and/or contributions for the management of a wetland, with a particular focus on interest groups within local and indigenous communities and the government agencies responsible for wetland management.

9. Note that the reference to "local communities and indigenous people" has been shortened to "local and indigenous people." Also, the term "indigenous people" may vary from country to country. Furthermore,"local" is a relative term; some stakeholders may live at a distance from the wetland (such as migrating fisherfolk or pastoralists) and still have traditional claims to its resources.

II. Summary of lessons learned from participatory management case studies

10. **Incentives for local and indigenous people's involvement and wise use are essential: everyone must benefit in the long term**

    a. Local and indigenous people benefit from participatory management arrangements through the maintenance of sustainable livelihoods, including activities such as:

       i. fishing and hunting;
       ii. farming and haying;
       iii. reed harvesting and collection of forest products;
       iv. salt extraction;
       v. recreational uses and ecotourism; and

vi. water for domestic consumption.

b. Other benefits of participatory management for local and indigenous people include:

i. maintaining spiritual and cultural values associated with a wetland;
ii. more equitable access to wetland resources;
iii. increased local capacity and empowerment;
iv. reduced conflicts among stakeholders; and
v. maintaining ecosystem functions (e.g., flood control, improved water quality, etc.).

c. Government agencies benefit from participatory management arrangements through:

i. improved ecosystem viability;
ii. reduced management costs;
iii. assistance with monitoring and surveillance;
iv. fewer infringements; and
v. enhanced social sustainability and quality of life for communities dependent on wetlands.

d. Incentives such as tax concessions, subsidies, conservation easements, special arrangements for licenses, increased market access, financial compensation schemes, increased infrastructure, and development activities can, if appropriately structured, further wise use objectives when directed to local and indigenous stakeholders.

11. **Trust among stakeholders is essential and must be developed**

a. Development of trust among stakeholders takes time, effort and attention. Elements that contribute to building trust include:

i. a willingness to seek joint objectives cooperatively;
ii. mutual effort;
iii. mutual respect;
iv. open and ongoing communication;
v. clear and realistic expectations about process outcomes;
vi. satisfactory and timely completion of agreed tasks;
vii. following through on commitments; and
viii. participation of all sectors of the community.

b. Participatory management works best when stakeholders' interests are openly stated.

c. Clearly stated terms of reference and objectives assist in the establishment of management partnerships.

d. Participatory management processes require strong facilitation that builds trust among stakeholders. Independent brokers with strong leadership skills are most effective (often this is a role for NGOs).

e. Appropriate legal or policy frameworks (such as the right to organize, legal recognition of NGOs, conservation easements, etc.) assist in the establishment of participatory management arrangements.

f. Forums, study groups, and workshops can be useful means to increase shared understanding of Ramsar principles and the value of resources being conserved or sustainably used.

12. **Flexibility is required**

a. There is no one level of local and indigenous people's involvement that fits all contexts.

b. There is no one approach or recipe that will make the process work in all contexts.

c. For participatory management regimes to be successful, it may be necessary to meet basic development needs in the process of pursuing wise use objectives.

d. "Learning by doing" approach (i.e., ongoing assessment of process and outcomes) allows for re-orientation as needed.

13. **Knowledge exchange and capacity building are fundamental**

a. Government agencies often require capacity building in participatory management approaches, such as those specified below for stakeholders.

b. Stakeholders often require capacity building in:

i. establishing and maintaining appropriate organizations;
ii. effective relations with government agencies;
iii. negotiating and contributing to decision-making;
iv. technical aspects of wetland management and Ramsar's principles;
v. monitoring of wetland ecology and identifying changes in ecological character;
vi. evaluation of participatory processes; and
vii. elaboration and design of project proposals to obtain funding.

c. Local environmental knowledge can make a significant contribution to wetland management strategies, especially when blended with the best available science.

d. Engaging local stakeholders in site monitoring and process evaluation makes a valuable and substantive contribution to achieving participatory conservation objectives.

e. A multidisciplinary approach utilizing biological and social science expertise is vital for establishing participatory management regimes.

f. Site monitoring can take advantage of a "marginal cost" approach: technical experts may be engaged, and established facilities (such as university laboratories) may be used at minimal cost.

g. Networking mechanisms such as regular meetings, newsletters, and radio programmes fulfil information exchange and educational purposes.

h. Basic Ramsar concepts, stewardship principles and ecological values can be conveyed through the educational curriculum of local schools.

i. Wetland Centres can:

i. catalyse active and informed participation of local and indigenous people;
ii. serve as demonstration sites for sustainable wetland management;
iii. support formal, informal and non-formal educational programs that involve a wide range of stakeholders;
iv. help to bring local and indigenous people's concerns to the attention of decision-makers; and
v. provide information and advice on wetlands and their management.

14. **Continuity of resources and effort is important**

a. Establishing participatory management takes time.

b. As with any management regime, participatory management may never be fully self-financing.

c. Financing through donor and/or government channels is important for sustainability.

d. Appropriate legal and policy frameworks at national and local levels contribute to continuity.

e. High-level political support, ideally from a number of the appropriate Ministries, is important for maintaining government commitment to participatory management regimes.

III. Engaging local and indigenous people

15. When involving local and indigenous people in the participatory process, those who facilitate or coordinate such efforts should:

a. Ensure that all stakeholders understand the role of the facilitators/ coordinators.

b. Regularly verify that all stakeholders agree upon the basic objectives of the initiative.

c. Raise awareness of wetland conservation and sustainability issues. Involve local and indigenous people in preparing and running awareness-raising activities.

d. Ensure the involvement of influential individuals in the community and all sectors of the population, and especially the women and youth of the community.

e. Encourage stakeholder ownership of the process and participatory management arrangements, ensuring that no key participants are excluded.

f. Involve and strengthen local organizations and traditional structures that represent different stakeholders among local and indigenous people. Assist in the establishment of such organizations if they do not already exist.

g. Develop local capacity including organizational and negotiating skills, keeping of records and financial accounts, and conflict management, and provide (as necessary) the meeting place, telephone access, basic equipment, and transportation.

h. Ensure that persons acting as facilitators and coordinators are properly trained in participatory assessment and planning techniques and possess the necessary facilitation skills.

i. Work with public-sector stakeholders to build capacity for developing and administering participatory management processes.

j. Ensure that key parties have a clear understanding of each other's needs, responsibilities and limitations.

k. Ensure that local and indigenous people learn participatory assessment and planning techniques so that they can be applied to other community concerns.

l. Ensure that all commitments are met.

m. Develop a site monitoring and process testing programme using local resources to check progress.

n. Ensure that tasks taken up by various stakeholders are within their capabilities.

o. Keep funding agencies aware of issues and progress of participatory management approaches.

p. Establish networks among communities involved in wetland management and encourage regular contact and sharing of experiences.

q. Support the application of traditional knowledge to wetland managment including, where possible, the establishment of centres to conserve indigenous and traditional knowledge systems.

IV. Measuring local and indigenous people's involvement

16. The following list is a brief, non-exhaustive checklist of indicators that can assist to measure the extent of local and indigenous people's involvement The sections below correlate with those in Section II (paragraphs 10-14) to assist cross-reference.

17. **Incentives**

a. Local and indigenous people have achieved an economic stake or other interest in the wise use of wetland resources.

b. The government agency has stated policies supporting participatory management.

c. Appropriate legal and financial incentives for participatory management are in place.

d. A more equitable sharing of benefits among stakeholders has resulted from the participatory management process.

e. Stakeholders have expressed satisfaction with their involvement in the process.

18. **Trust**

a. There is a clearly stated and widely known policy or legal document that makes a commitment to involving local and indigenous people.

b. All key stakeholders (particularly government) acknowledge participatory management as legitimate and desirable.

c. Local and indigenous people are now involved in making substantive decisions affecting the wetland resource use and management.

d. Local organizations to advance participatory management are respected within the community.

e. Representatives of the local and indigenous people are truly representative and accountable to them.

f. There are resource use and participation rules which are appropriate to the local situation.

g. A management agreement exists between stakeholders (oral or written, formal or informal).

h. The management agreement has clearly defined boundaries and membership.

i. The management agreement specifically defines stakeholders' functions, rights and responsibilities.

j. The management agreement has been approved by at least the resource-using stakeholders and key decision-making groups.

k. Parties to the agreement meet their commitments.

l. Non-compliance with approaches, rules, rights, and responsibilities outlined in the management agreement is deemed to be at an acceptable level.

m. Any system of graduated sanctions for infringement of rules has been agreed upon by all key parties.

n. There is evidence that resource management controls are being implemented.

19. **Flexibility**

a. There is the potential for collective modification of the rules relating to resource use by those affected.

b. There are "nested" management units (different bodies at different levels).

c. There is evidence that the local and indigenous people can influence the speed and direction of change in relation to the resources with which they are concerned.

d. Facilitators/coordinators practice "learning by doing" and adaptive management.

20. **Knowledge exchange and capacity building**

a. There is an awareness among stakeholders of new management approaches, rules, rights, and responsibilities.

b. There is a two-way flow of information and communication between local and indigenous people and relevant government agencies.

c. Information reaches local and indigenous people in a timely and accurate manner, and in a form which is readily understandable.

d. Local and indigenous people participate in site monitoring and in evaluation of the participatory process.

e. There is evidence of respect by key government agencies for local human systems and local ecological knowledge.

f. Stakeholders are demonstrating necessary skills and empowerment (e.g., capacity to make decisions, monitoring skills, etc.).

g. Measurement methods, established by the stakeholders, demonstrate and quantify the degree to which local participation was intended to, and actually has improved or conserved the recognized "functions and values" of the wetland and its wise use.

21. **Continuity**

a. There are one or more organizational structures that facilitate local and indigenous people's involvement (e.g., a council, management body, women's group, etc.).

b. A random sample of local and indigenous people are able to identify the community's role in wetland management, and the individuals who are directly involved can accurately describe the objective of their involvement.

c. The government agency and its staff have a demonstrated commitment to participatory management, and can accurately describe the objective of local and indigenous people's involvement.

d. There is an appropriately long-term source of funding for ongoing participation and resource management.

e. Local and indigenous people have provided in-kind support (time, labour, traditional knowledge and expertise) to implement the participatory management agreement.

f. Conflict management mechanisms exist, and there is an appeals process in case of conflicts within the management partnership.

g. There is integration between local wetland management and management of the entire catchment.

V. Testing the participatory approach

22. Local participation in wetland management is a tool for advancing the Convention's objective to achieve wise use of all wetlands. Administrative Authorities of the Ramsar Convention, managers, and process facilitators and coordinators need to be aware of existing wise use guidance and need to continuously apply this guidance in the participatory management decision-making process. The decision-making process should, at each stage, consider the implications of actions in terms of the following Ramsar standards and principles:

a. Ramsar's Wise Use Guidelines (Recommendation 4.10 and Resolution 5.6);

b. Ramsar's Management Planning Guidelines (Resolution 5.7);

c. Monitoring ecological character of the site (Article 3; Recommendation 5.2, Resolution VI.1, and Resolution VII.10).

d. Standards for managing for wise use:

i. there is an increase or maintenance of species diversity, size of wetland area, and water quality;
ii. resource use is sustainable;
iii. the precautionary principle is being applied;
iv. cost-benefit analyses consider wetland functional values;
v. the participatory process takes a catchment perspective and decisions within that framework consider what is best for the wetland(s); and
vi. degradation of wetlands has been replaced by efforts to restore and rehabilitate them.

Resolution VII.9

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

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)

1. RECALLING Resolution VI.19 which called for a concerted programme of education and public awareness "*to increase the knowledge and understanding of wetland values and benefits and so develop action towards the conservation and sustainable management of wetland resources*";

2. NOTING General Objective 3 of the Strategic Plan 1997-2002 of the Convention which describes a range of actions designed to allow the Convention "*to raise awareness of wetland values and functions throughout the world and at all levels*";

3. RECOGNISING the importance of communication, education and public awareness as central elements of implementing the Ramsar Convention and its Strategic Plan;

4. EXPRESSING THANKS to the participants in the workshop convened by the Ramsar Bureau in September 1998 as follows: Commission on Communication and Education of IUCN - The World Conservation Union; Ghana Wildlife Society; Global Rivers Environmental Education Network (GREEN); Water Planet; Water Watch Asia; Watercourse and Project WET; Waterwatch Australia; Wetlands International Specialist Group on Education and Public Awareness; Wildfowl and Wetlands Trust; and the World Wide Fund for Nature (WWF), who contributed significantly to the development of the Convention's Outreach Programme;

5. FURTHER NOTING that this Conference, in Technical Session III, has considered and discussed in detail the Convention's Outreach Programme 1999-2002;

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6. ADOPTS the Convention's Outreach Programme 1999-2002 as annexed to this Resolution to provide guidance to Contracting Parties, the Ramsar Bureau, the Convention's International Organization Partners, local stakeholders and others in the development of appropriate communication, education and public awareness actions to support the implementation of the Convention at the international, regional, national and local levels;

7. REQUESTS all Contracting Parties, in accordance with the Outreach Programme, to nominate, by 31 December 1999, suitable Government and Non-government Focal Points for Wetland Communication, Education and Public Awareness (CEPA) to undertake the functions therein specified;

8. FURTHER REQUESTS that the names and contact details for these Focal Points be provided to the Ramsar Bureau as soon as possible in order to create a global network of experts in this field to advance the sharing of knowledge, expertise and resources;

9. URGES, as suggested in the Outreach Programme, that each Contracting Party establish appropriately constituted Task Forces, where no mechanism exists for this purpose (e.g. National Ramsar Committees), to undertake a review of national needs, capacities and opportunities in the field of wetland CEPA, and based on this to formulate their National Wetland CEPA Action Plans for priority activities which consider the international, regional, national and local needs;

10. ENCOURAGES Contracting Parties to seek to have their National Wetland CEPA Action Plans in place by 31 December 2000, and to provide copies of these to the Ramsar Bureau to make available to other Contracting Parties and interested organizations and persons;

11. STRONGLY URGES each Contracting Party to seek to develop and implement their National Wetland CEPA Action Plans as integrated components of their broader environment, biodiversity, wetland and water management policy instruments and programmes, to ensure that communication, education and community awareness are recognised as underpinning the effective delivery of these activities;

12. WARMLY INVITES relevant global programmes which fill the criteria for official International Organization Partners of the Ramsar Convention as per Resolution VII.3 to facilitate future working partnerships and cooperation in advancing implementation of this Outreach Programme;

13. DIRECTS the Ramsar Bureau, as funds and human resources allow, using information and materials provided to it by the national Focal Points for Wetland CEPA in each Contracting Party, to establish as part of the Convention's Web site a clearing-house for information relating to wetland CEPA;

14. NOTES and ENDORSES the targets set by the Outreach Programme in terms of using the full potential of the Internet and e-mail to assist with wetland CEPA activities and general implementation of the Ramsar Convention, namely that by the year 2000 every Administrative Authority of the Convention should have Internet access and e-mail facilities and then to progressively link these Administrative Authorities with Ramsar site managers, the National Wetland CEPA Focal Points and those facilities dedicated to promoting environmental and wetland education and awareness raising;

15. WELCOMES the growing celebration of World Wetlands Day and Week in a large number of countries, and URGES Contracting Parties to continue, or to begin to use this occasion to bring attention to their achievements and continuing challenges in wetland conservation and wise use;

16. DRAWS ATTENTION to the section of the Outreach Programme which considers formal education and training initiatives, and ENCOURAGES the Administrative Authorities in each Contracting Party to review this in partnership with the relevant Ministry, and to seek participation on their Wetland CEPA Task Forces of a representative from this Ministry and other appropriate expert bodies and organizations;

17. REITERATES ITS STRONG SUPPORT for the Wetlands Link International initiative, a cornerstone of the Outreach Programme, EXPRESSES CONCERN for the lack of significant support for this Programme in the past, and URGES Contracting Parties, International Organization Partners of the Convention, regional and national NGOs, and potential sponsors to reassess their priorities in an effort to mobilise resources to see this initiative fulfil its potential;

18. CALLS UPON multilateral and bilateral donors, and private sector sponsors to recognise the value and importance of supporting activities directed at promoting enhanced communication, education and public awareness, and the recovery, preservation and dissemination, where appropriate, of traditional knowledge and skills relating to wetlands, and to allocate funds specifically for the preparation of National Wetland CEPA Action Plans.*

* In this context, also note paragraph 18 of Resolution VII.28 on Financial and Budgetary Matters, which reads: "DECIDES to establish a Voluntary Fund for the Convention's Outreach Programme, REQUESTS the Standing Committee to prepare and adopt the Terms of Reference for the Fund at its annual meeting in 1999; and INVITES Contracting Parties, NGOs, foundations, the private sector and other institutions to contribute to the Fund."

Annex

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)

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Goals and rationale of the Outreach Programme

1. The Outreach Programme is a direct response to General Objective 3 of the Strategic Plan 1997-2002 of the Convention, as adopted at the 6th Conference of the Contracting Parties in 1996. Through its three Operational Objectives, General Objective 3, describes a range of actions designed to allow the Convention:

   "*To raise awareness of wetland values and functions throughout the world and at all levels***".**

2. The three Operational Objectives under General Objective 3 of the Strategic Plan refer to international and national programmes of education and public awareness and the communications activities of the Convention and the Ramsar Bureau. In the Outreach Programme described herein, the same three areas of activity are considered in an integrated way and a model is presented to assist Contracting Parties, the Ramsar Bureau, the Convention's International Organization Partners, local people and others to undertake appropriate actions to reach their respective priority target groups.

Defining the challenge

3. The challenge for the Contracting Parties, the Ramsar Bureau, the Convention's International Organization Partners, local people and others is to develop effective communication in order to change those practices that act against wetland conservation and the wise use of wetland resources. To be effective, the Contracting Parties need to engage stakeholders in defining the issues and possible solutions and to use communication and education as tools appropriately linked to legal and economic instruments to bring about change. This means that communication should form a central part of implementing the Ramsar Convention by each Contracting Party, supported by the Ramsar Bureau and the International Organization Partners of the Convention.

Goals

4. The goals of the Outreach Programme are the same as those given with the respective Operational Objectives contained in General Objective 3 of the Strategic Plan 1997-2002 of the Convention as follows:

   i. Operational Objective 3.1: "To support and assist in implementing, in cooperation with partners and other institutions, an international programme of Education and Public Awareness (EPA) on wetlands, their functions and values, designed to promote national EPA programmes."

   ii. Operational Objective 3.2: "To develop and encourage national programmes of EPA on wetlands, targeted at a wide range of people, including key decision-makers, people living in and around wetlands, other wetland users, and the public at large."

   iii. Operational Objective 3.3: "To improve the Ramsar Bureau's communications activities and to develop a Convention Communications Strategy, capable of further promoting the Convention and its wider application, and of raising awareness of wetland values and functions."

Rationale for the Outreach Programme

5. The Convention on Wetlands needs an Outreach Programme in order to:

   i. generate a greater awareness among people about the functions, services and values of wetlands so they are perceived as important assets of the natural infrastructure of each country;

   ii. motivate people to care about wetlands so that they become involved in policy formulation and hands-on planning and management of wetlands. This is the key to encouraging those behaviours that impact positively on wetlands and lead to the sustainable use of the resource;

   iii. build support for wetland conservation and wise use amongst policy makers, the private sector and all sectors of society - the Ramsar Convention's constituency.

6. Without communication, the Contracting Parties and the Convention risk witnessing continuing conflicts over wetland management and ongoing degradation and loss of wetlands, and their functions, services and values.

7. Wetlands are vital for sustaining human life and must be managed accordingly. Communication is the link from science and ecology to people's social and economic reality. Communication supplies the oil for the implementation of the Convention's 'tools', providing the information needed by the Contracting Parties and its supporters to see wetland conservation and wise use implemented.

About the Outreach Programme

8. The specific actions described in the following sections are not intended to be exclusive. A key to successful communication is being clear about the issue, the particular circumstances of the people involved, the barriers to changing harmful practices, and developing messages and means to transmit them to suit the circumstances. This Programme should be viewed as providing a framework for actions which can help to guide activities undertaken by interested people and organizations at all levels and all over the world.

9. It is not the intention of this Programme to be prescriptive or comprehensive; it aims merely to provide a range of suggestions and options for actions which may or may not suit all situations or contexts. Overall, the Outreach Programme is intended to assist with putting in place an appropriate framework for actions in the communication, education and public awareness domain that will facilitate the implementation of the Convention on Wetlands.

Identifying the target groups

10. There are a large number of target groups for this Outreach Programme which fall within the broadest category of the general community or civil society. To assist Contracting Parties and others using this Programme to decide on the actions they will take, Appendix I describes 27 subgroups of civil society which have been identified as being those people who can make a significant and immediate difference in the status and long-term

sustainability of wetlands. In developing international, regional, national or local programmes of action based on this Outreach Programme, Contracting Parties and others are urged to take Appendix I into consideration for their own situations in determining the highest priority target groups.

The Actors

11. A fundamental assumption of the Outreach Programme is that as a consequence of the actions taken in response to it, there will be an increasing number of "actors" who become agents or ambassadors for the Convention on Wetlands and the principles it seeks to have applied. Support for the Outreach Programme should therefore be seen as an investment which aims to educate decision-makers and mobilise local scale actions directed at achieving the conservation and wise use of wetlands.

12. This section recognises that at the outset it is essential to identify the primary actors who will lead the processes of communication, education and public awareness - those people and organizations that must take a primary responsibility for designing and implementing action programmes suited to the regional, national or local situations and priority target groups.

13. **Contracting Parties.** The designated Administrative Authority of the Ramsar Convention in each Contracting Party has a responsibility to show leadership in promoting and undertaking wetland communication, education and public awareness (Wetland CEPA) activities at the national, and as appropriate, international, regional and local levels. Where the Administrative Authority itself does not have the expertise to take on such a role, the training of personnel in Wetland CEPA is recommended (paragraphs 44-46), or alternatively, working in partnership with other Ministries or organizations with personnel who possess these skills is encouraged.

14. Irrespective of the approach taken with respect to reviewing needs, capacities and opportunities as suggested by the Outreach Programme, each Contracting Party is invited to nominate a National Focal Point for Wetland Communication, Education and Public Awareness (Wetland CEPA) in order to have an identified expert leader of the actions to be taken.

15. **The Convention secretariat.** The Ramsar Bureau will continue to play the role of facilitator in Wetland CEPA. The following section of this document outlines the major ongoing and proposed actions which the Ramsar Bureau will undertake to assist the implementation of the Outreach Programme at all levels. Among these actions is the recognised need for the Ramsar Bureau to work closely with the International Organization Partners of the Convention to promote the availability of their resources and expertise to the Administrative Authorities of the Convention.

16. **International Organization Partners of the Convention.** The Convention has a number of official International Organization Partners: BirdLife International, IUCN - the World Conservation Union, Wetlands International, and the World Wide Fund for Nature (WWF). These organizations already offer to the Convention considerable resources and expertise to assist Contracting Parties and others with developing more strategic approaches to Wetland CEPA. The following section examines some ways for Contracting

Parties to work more with these International Partners in pursuing their aspirations in the CEPA area.

17. The 7th Conference of the Parties has adopted Resolution VII.3 adopting criteria and guidelines for the acceptance of further official International Organization Partners. It is hoped that a number of other organizations with expertise in the area of Wetland CEPA will seek official Partner status of the Convention to allow for enhanced cooperation and partnership in the future.

18. **Regional and national non-governmental organizations.** As with International Organization Partners, key actors in developing and implementing Wetland CEPA Action Plans are the regional and national non-governmental organizations with expertise in these areas. In recognition of this, in the following section Contracting Parties are urged to identify a suitable expert from a non-governmental organization to work in partnership with the governmental Wetland CEPA Focal Point in undertaking an action plan (see paragraph 14 above).

19. **Local stakeholders.** Perhaps the key actors are those people at the local level who fall within the category of stakeholders - people whose lives and livelihoods are determined, at least in part, by what happens at their local wetland(s). Under any Wetland CEPA Action Plan, assisting these local people to fully appreciate their wetland(s) and to raise the awareness and understanding of the importance of the wetland resource among others from outside the local community is essential. If these wetland "managers" fail to appreciate the functions, services and values provided by their wetland(s), then the efforts of governments and non-government organizations will struggle to have impact. Local stewardship, based on understanding and appreciation, is vital.

20. **Donor agencies and sponsors.** For many countries, and especially the developing countries and those in economic transition, an impediment to putting Wetland CEPA Action Plans in place is likely to be the lack of resources and expertise. It is therefore important that from the earliest stages of planning the Wetland CEPA Action Plans (paragraphs 25-33) that these Contracting Parties consult potential funding sources and work with them to produce projects likely to gain support. These supporters may be the traditional multilateral and bilateral donor agencies for the developing and transition countries, but consideration should also be given to inviting private sector sponsors. A good example of that is the current partnership project in which the Ramsar Bureau is engaged with the private sector Danone Group and several government agencies from France. This three-year programme of actions directed at the theme of "Caring for water resources and water quality" is allowing funds to be directed to six themes of action under the Ramsar Convention, ranging from site networks for migratory species to training, water and human health projects, and a range of communication and awareness raising activities. This cooperative project provides an ideal model for national programmes as well.

Tools and frameworks for action

21. This section of the Outreach Programme provides a broad framework or model for the development of Wetland CEPA Action Plans. These plans should be developed for application at the international, regional, national and local levels. They may be developed by Contracting Parties working as international or regional partners, through national

programmes developed jointly by the Ramsar Administrative Authority and non-government organizations, through to local scale action plans formulated and implemented by local stakeholders for local needs. It is hoped that all types of Wetland CEPA Action Plan will result from the adoption and application of the Outreach Programme. What follows is intended to offer suggestions for how to go about developing an appropriately targeted action plan for CEPA to promote wetland conservation and wise use.

Reviewing needs, capacities and opportunities

22. The starting point suggested is a review of the current needs, capacities and opportunities in the area of Wetland CEPA. This is itself no small undertaking if it is to be comprehensive and to provide a clear picture of where current strengths and weaknesses lie in this regard. The following offers a framework for undertaking such reviews leading to the development of an Action Plan at each level:

    a. **Appointment of National Government Focal Point** - As mentioned in paragraph 14 above, each Contracting Party is invited to nominate a National Focal Point for Wetland Communication, Education and Public Awareness (Wetland CEPA) , and to advise the Ramsar Bureau of the person fulfilling this role and his/her contacts details. This person should be an expert in the area of Wetland CEPA from the Ramsar Administrative Authority, where they are available, or might alternatively be from another appropriate government agency. His or her role is be the identified leader and contact point for Wetland CEPA activities relating to wetlands nationally, as well as within the region and internationally.

    b. **Appointment of National Non-government Focal Point** - Recognising the major role that non-government organizations play or can play in Wetland CEPA activities, each Contracting Party is also encouraged to invite a suitable individual from an international, regional or national NGO to be the Non-government Focal Point for Wetland CEPA activities and to work with the Government-based Focal Point in progressing the review of needs, capacities and opportunities, and subsequent plans of action.

    c. **Build a global network of Focal Points** - These Focal Points are expected to form part of a global network of experts to share information, promote the dissemination of resource material and support the development or expansion of programmes which can provide opportunities for individual, group and community participation in wetland and water resource management. These issues are considered in more detail in the following paragraphs.

    d. **Integrate Wetland CEPA into the business of National Wetland or Biodiversity Committees** - In order to promote communication, education and public awareness activities, it is advisable that the National Focal Points are members, or permanent observers, on the national committees charged with the development and implementation of policy instruments such as national wetland policies, biodiversity strategies, and water policies where they exist. Such membership will also assist greatly with the review of capacities and options.

    e. **Establish a Wetland CEPA Task Force** - Further, if no other mechanisms exist for this purpose, the establishment of a small task force is recommended, to undertake the review of needs and options and to set priorities based on these

conclusions. At the very least this task force should include the Government and Non-government Focal Points referred to in paragraphs 22 a) and b) above, as well key representatives of the five groups of "actors" described in paragraphs 13-20, wherever possible. From within the Government it should include at least representatives of the Ministries which deal with matters relating to environment and conservation, water resource management and education. Depending on the primary threats to wetlands within the region, country or local setting, it may also be wise to include representatives of those Ministries responsible for primary production/ agriculture and tourism.

f. **Multi-level framework for Wetland CEPA review** - The scope of the review of capacities and opportunities should be comprehensive, including at least the areas of activity considered in paragraphs 25 onwards, namely, communication between the actors; campaigns to raise awareness and promote action; sharing of resource materials and knowledge; formal education and training opportunities and the curricula of these; and the roles being played by dedicated centres for environmental education and awareness raising. In addition, it may be advisable to consider the review at the various levels - international, regional, national and local - to establish where activities are under way, or where there exists potential for them to be fostered or built upon. Consideration of these areas will give a clearer indication of the possible scope available at each level.

g. **Action Plan formulation** - Under the Outreach Programme, each Contracting Party is encouraged to complete its review of Wetland CEPA capacities and options by 30 June 2000 at the latest. The Ramsar Bureau will facilitate these reviews by preparing a questionnaire for use by the Wetland CEPA review task forces and National Focal Points. Based on the findings and conclusions of this review, the Wetland CEPA Focal Points and Task Forces are expected to prepare for consideration by the Ramsar Administrative Authority within their countries a Wetland CEPA Action Plan which provides guidance on the highest priority actions. This advice should be provided to the Administrative Authority before 31 December 2000 and copied to the Ramsar Convention Bureau to allow the Bureau to offer advice and assistance as appropriate.

Action planning process

23. **Identify threats at all levels** - Paragraph 22 above sets out a framework for undertaking a review of the capacities and opportunities for Wetland CEPA which is designed to result in an Action Plan. Such a Plan needs to be tailored to the needs of each country, and for each level - international, regional, national and local. One approach to consider in drawing up such an Action Plan is that of threat analysis in order to establish which actions occurring within a country are resulting in the greatest losses or degradation of wetlands. Is it pollution impacts, direct conversion to other uses or water shortages, for example? This approach can help to identify those targets groups (refer to Appendix I) for highest priority attention.

24. **Identify most cost-effective actions** - Another approach is to consider the most cost-effective actions that can be taken. For example, one key question may be, is it a better use of scarce resources to target local stakeholders or political representatives and high level decision-makers? The first may offer longer term, local results while the second group usually make decisions which have broader implications. It is the role of the National Focal

Points and Wetland CEPA Task Force, or other appropriate mechanism, to advise the Administrative Authority on the priority target groups and how best to communicate with them to ensure their behaviours are acting in support of wetland conservation and wise use.

Communication among the actors

25. **Establish the strengths and weaknesses in communication** - A priority within the review of capacities and opportunities described in paragraph 22 above should be to establish the level, type and effectiveness of communication between the various actors identified in paragraphs 13-20 above and the target groups identified in Appendix I. This should help to show where communication is not occurring, and alternatively where it is occurring and needs to be retained or enhanced. In this analysis it may be useful first to establish the priority target groups (refer to paragraph 24 above). As an example, do the persons responsible for managing each Ramsar-listed wetland within the country have direct communication with one another, with the Administrative Authority, with the managers of other Ramsar sites used by the same migratory species, and direct access to the Ramsar Bureau's Wise Use Resource Library? Or do the officials in every relevant government Ministry have copies of the Ramsar Convention Strategic Plan and access to the more detailed information about the Convention available on the Convention's Web site?

26. **Define the information and training needs** - The review of communications should consider the information requirements of each target group - meaning the information which will allow them to behave as the Convention would encourage (refer to Appendix I) - to establish where that information or advice should or could come from, and how to make the connection between the providers and those who need the information or training. This process will show where communication breakdowns at present are directly inhibiting the implementation of the Convention. It is these that the Wetland CEPA Action Plan should aim to address.

27. **Locate sources of expert information and training** - An important element of examining communications is also to establish the sources of information or training which can provide opportunities for increasing the capacities in this area. In this regard, contact with the Convention's International Organization Partners and the Ramsar Bureau may assist. Alternatively, those countries that have extensive resource materials and a variety of training options available are urged through the Outreach Programme (refer to paragraphs 39-43 below) to advertise the availability of these and make access to them simpler. Facilitating the sharing of expertise and knowledge is the central element of the Wetland CEPA Action Plan. It is expected that the Wetland CEPA National Focal Points will seek advice and assistance from their counterparts in other countries in locating suitable sources of resource materials and training. The Ramsar Bureau's Directory of Wetland Management Training Opportunities will also assist in this area (refer to paragraphs 44-46).

28. **Using the full potential of the Internet and e-mail** - With the advent of the information superhighway, the ways of communicating are rapidly being transformed, and under the Convention's Outreach Programme this should be anticipated and accommodated within Wetland CEPA Action Plans. The Bureau of the Convention has a well-developed World Wide Web site and increasingly conducts its day-to-day business through electronic mail. A target under the Outreach Programme is to have e-mail contact with the Administrative Authorities in every Ramsar Contracting Party by the year 2000.

This target also includes e-mail contact with the designated National Focal Points for Wetland CEPA, and these same individuals should also have access to the Convention's Web site. The Ramsar Bureau will continue to develop the Convention Web site and add resource materials to ensure that it remains the centrepiece of this Outreach Programme.

29. **Create a global Ramsar e-mail network** - The target to follow those described above is to progressively develop Internet access, and to have e-mail links between the Ramsar Administrative Authorities, the National Wetland CEPA Focal Points, the Ramsar site managers and those facilities dedicated to environmental education and awareness raising, including local communities and indigenous people (refer to paragraphs 47-49). This communication network should provide the framework of a global Ramsar electronic network for sharing knowledge and information. Within national Wetland CEPA Action Plans, and also those at other levels of action, there should be a forward plan and vision to equip the key people with Internet access and e-mail capacity.

30. **Continue and increase official communications between the Ramsar Bureau and the Ramsar Administrative Authorities** - In addition to the Web site, the Bureau maintains the "Ramsar Exchange" intended for official communication between the Ramsar Bureau and the Administrative Authorities and amongst the Administrative Authorities themselves. This exchange operates in three (separate) language sections (English, French and Spanish) and includes all Administrative Authorities for which the Ramsar Bureau has e-mail addresses. There are also separate lists, with similar purposes, for the members of the Standing Committee and the Scientific and Technical Review Panel. To expand this communication service further, the Ramsar Bureau will establish a separate Ramsar Exchange section for the National Focal Points for Wetland CEPA. Within national Wetland CEPA Action Plans, it should be a priority to have the key people operating within the appropriate Ramsar Exchange.

31. **Expand the Ramsar Forum** - The Convention Bureau also manages an open e-mail dialogue area for the public, the Ramsar Forum, which in late 1998 had 540 members drawn from organizations, academic institutions, government and intergovernmental institutions and citizens around the world. Approximately 100 substantial messages per month are posted there, comprising (in addition to the Ramsar Bureau's announcements) technical queries and calls for assistance, conservation alerts, and announcements from other groups about meetings, etc. The Forum provides a valuable service and has increased the number of groups connected to the Convention and involved in wetland issues. Within national Wetland CEPA Action Plans a priority should be to have key national and local people participating as part of the Ramsar Forum.

32. **Links to Contracting Party and other Web sites** - Consistent with its Memorandum of Cooperation and Joint Work Programme with the Convention on Biological Diversity (CBD), the Ramsar Convention also supports the long-term vision of the Clearing-house Mechanism under that Convention; namely, that each Contracting Party eventually has its own Web site dedicated to the issues of the Convention. Achieving this is a long-term vision of the Outreach Programme, as is the establishment of the global Ramsar e-mail network. Contracting Parties are urged to include as part of their Wetland CEPA Action Plans the development of such Web sites dedicated to their wetland-related activities. Contracting Parties, with Ramsar's International Organization Partners and others, are also urged to ensure that any existing or newly established Web sites providing appropriate information resources are 'hot linked' to the Ramsar Convention Web site and vice versa.

33. **A more accessible database for the Wetlands of International Importance** - As the List of Wetlands of International Importance rapidly expands, a priority is to make the information about these flagship sites more freely available by electronic means. The database, managed for the Convention by the Wetlands International office in the Netherlands, will be introduced on the World Wide Web by the end of 1999. Capacity for answering a range of queries on-line is envisaged. Contracting Parties, in developing their Wetland CEPA Action Plans, should anticipate this development and plan for increased use of the Ramsar sites database as a promotional and information tool.

Campaigns

34. **Long and short-term campaigns** - One element to consider as part of a Wetland CEPA Action Plan is that of using a campaign approach to raising awareness and to promoting long-term changes in attitudes and behaviour. Such campaigns can be relatively low profile, gradual escalations of activities to raise awareness of issues or shorter term, possibly higher profile activities taken at an appropriate time or location.

35. **World Wetlands Day and Week** - This was established through Action 3.1.5 of the Convention's Strategic Plan and provides one such option for short-term promotions. It has been celebrated since 1996 with increasing popularity and interest. The Week could coincide with World Wetlands Day, proclaimed as 2 February to mark the adoption of the Convention in 1971 in Ramsar, Iran.

36. **A diversity of approaches** - In some countries there has been success with launching or concluding during World Wetlands Week national campaigns designed to promote issues and engage the general community in local actions. The slogan "think globally - act locally" is one that applies to wetlands. Under the Outreach Programme such action programmes are encouraged. Depending on the circumstances, local or national actions to restore wetlands, collect litter and clean up pollution, remove invasive species or erect educational signs can provide momentum for year-round actions by communities. They can also have relevance to more regional issues such as cooperation in the management of shared wetlands, river basins or migratory species. Some governments are now using World Wetland Day/Week events for special announcements, such as designations of new Wetlands of International Importance, or the adoption of a National Wetlands Policy, so that it becomes recognised at all levels as the time when achievements under the Convention are publicised.

37. **Support from the Ramsar Bureau** - Under the Outreach Programme, the Convention Bureau will continue to advertise and promote World Wetlands Day and Week well in advance and to offer for each year a new theme designed to raise awareness of different aspects of wetland conservation and wise use. The Ramsar Bureau will also continue to provide some resource materials for use at the global, regional, national and local scales in promoting World Wetlands Day and Week. It will also endeavour to use this opportunity each year to launch global initiatives under the Convention so as to give World Wetlands Day a recognised media profile.

38. **Local actions a priority** - Contracting Parties, non-government organizations and local and indigenous people are urged also to use the opportunity of World Wetlands Day and Week to raise awareness of their own activities and programmes relating to wetlands.

Sharing resource materials

39. **Mobilising the flow of information and expertise** - Another element of the Outreach Programme framework is the sharing of resource materials relating to education and training. There exists a very large library of such resource materials, but at present it is spread around the world with few mechanisms in place for it to be shared and exchanged. These resources include curriculum materials for the education of children and adults, less formal teaching tools, awareness-raising materials, and the latest research findings. Some countries have enormous reservoirs of such material, others are desperate to receive it and adapt it for their situations.

40. **Production and distribution of printed materials** - As part of its responsibilities, the Ramsar Bureau produces a range of hard copy information including a regular newsletter, Information Packs, and more detailed technical publications designed to provide guidance in implementing the Convention. Examples of the publications produced include *The Economic Valuation of Wetlands* (1997), *Wetlands, Biodiversity, and the Ramsar Convention* (1997) and *The Ramsar Convention on Wetlands: Its History and Development* (1993). As part of the Outreach Programme the Ramsar Bureau will continue to generate a range of educational and information publications about the Ramsar Convention and its work, as well as more technical guidance. This will be done in the three working languages of the Convention and, as resources allow, in other national languages as well. Posting of these publications on the Web site will also continue. Contracting Parties should ensure, as part of their Wetland CEPA Action Plans, the access and availability of these resources generated by the Ramsar Bureau.

41. **The Bureau as a clearing-house for educational resources** - The development of a Wetland CEPA Action Plan should also review the availability of such educational resource materials from sources other than Ramsar Bureau. Where they are held by a country it is suggested they be made available to the Ramsar Bureau which can advertise their existence at the global level. By operating a clearing-house or global library of educational resources on the Convention's Web site, the Ramsar Bureau can facilitate the sharing of resource materials. In keeping with the concept of a Clearing-house, the Convention's Web site will function as the node or hub of a network of Web sites housing these resources within national governments, non-government organizations or other interested persons who have Web sites. This will be done through the established Wise Use Resource Centre launched on World Wetlands Day in 1998.

42. **Language and local contexts to be considered** - Major impediments to applying the educational resources developed for other countries can be those of language and context. Ramsar Administrative Authorities, the Ramsar Bureau, NGOs and other interested organizations are urged to seek resources and ways to have relevant resource materials translated into local languages and adapted to suit local situations.

43. **Using the Wetland Experts Database** - In 1998 the Ramsar Bureau established the Convention's Wetlands Experts Database, which by early 1999 is expected to have nearly 450 wetland experts registered. The database is designed to provide a service to wetland managers and practitioners by helping to identify suitable experts to assist with addressing wetland management problems. Under the Outreach Programme the Experts Database will be expanded to facilitate the flow of information and knowledge. Ramsar COP7 has also added to the Convention's capacity in this area of technical expertise by inviting each Contracting Party to nominate a Focal Point for matters being considered by the Scientific and Technical Review Panel (STRP). (See Resolution VII.2.) This establishes a global

network of such experts that will be advertised by the Convention Bureau to provide another avenue for seeking expert advice. In addition, the Resolution creates links to the expert scientific and technical bodies of those other international conventions with which the Ramsar Convention has Memoranda of Understanding or Cooperation – the Convention on Biological Diversity, the Convention on Migratory Species, the Convention to Combat Desertification, and the World Heritage Convention. Further, it establishes links between the Convention's STRP and other expert organizations and networks such as the Society of Wetland Scientists, the International Association of Limnology, the Global Wetlands Economics Network, among others, to allow wetland managers easier access to the information and resources these bodies have available. Within national Wetland CEPA Action Plans, Contracting Parties are urged to note these opportunities for gaining direct access to technical and scientific expertise and to promote this appropriately.

Formal education and training

44. **Wetland conservation and wise use as part of formal curricula** - Another element of the Wetland CEPA review (paragraphs 22 above) is to evaluate the extent to which the curricula of formal education programmes within the country include the Ramsar principles of wetland conservation and wise use. In this regard, the involvement of a representative of the Education Ministry on the Wetland CEPA Task Force, or appropriate mechanism, is strongly recommended. Where the Ramsar principles are not included in such curricula, the Wetland CEPA Task Force, or appropriate mechanism, needs to consider and recommend to the Administrative Authority how best to redress this situation. Where these principles do form part of the formal curricula, Contracting Parties are urged to provide details to the Ramsar Bureau so that this information, and possible models for other countries, can be advertised and made available.

45. **Improved access to training programmes** - In 1998 the Ramsar Bureau began to assemble a *Directory of Wetland Management Training Opportunities* to assist those people who are seeking training in wetland management. By January 1999 it contained information regarding nearly 100 training opportunities which is now available in both hard copy and via the Convention's Web site. As part of reviewing Wetland CEPA needs, capacities and opportunities, Contracting Parties are expected to identify those opportunities for wetland management training which exist within their countries, and to factor this into their Action Plans. A part of such reviews should also include the opportunities for training in Wetland CEPA. Such information should also be passed to the Ramsar Bureau to be incorporated into the *Directory of Wetland Management Training Opportunities.*

46. **Undertake training needs analysis** - While it is important to be aware of the training opportunities that exist, of still greater importance is to establish the priorities for training which apply in the country. A first step in this process has to be to establish the priorities for training assistance. The Wetland CEPA Task Force, or appropriate mechanism, should make these recommendations based on its conclusions in terms of threats to wetlands within the country and the priority target groups. For example, if the Task Force concluded that the greatest threats to wetlands within a certain area were invasive plant species, then clearly training of the local site managers and stakeholders in the practices needed to control or eradicate these species is the highest priority. Alternatively, if local administrators are undervaluing the services and benefits provided by wetlands in approving development projects, then training in economic valuation techniques for these individuals may be the priority.

Centres for education and awareness raising

47. **Working with Environment and Wetland Education Centres** - Where they exist, these centres are ideally placed to promote the principles of wetland conservation and wise use and to foster communication among the 'actors'. Through its Wetlands Link International (WLI) programme, the Wildfowl and Wetlands Trust in the United Kingdom has begun to establish a communication network among such centres to foster information sharing. Appendix II of this Programme provides further details about WLI. Under the Ramsar Convention's Outreach Programme the following actions are recommended to make the WLI initiative a cornerstone of international, regional, national and local actions for Wetland CEPA:

    a. The Ramsar Convention Bureau and the Convention's International Organization Partners will seek resources from the private sector and others to sponsor WLI as a key educational delivery mechanism.

    b. The Ramsar Convention Bureau will promote WLI through its Web site and encourage the centres forming a part of WLI to become national centres of excellence for promoting Wetland CEPA.

    c. The Contracting Parties are urged, as part of their Wetland CEPA activities, to consider twinning arrangements between the environment or wetland education centres within their countries and with those of other countries to assist in promoting the goals of the Outreach Programme. Once these arrangements are in place, personnel exchanges and Internet links should be a priority.

    d. The Contracting Parties are encouraged to inform staff at environment and wetland centres in their country of the existence of the WLI network so that they can contribute to the exchange of information and expertise.

    e. The National Focal Points for Wetland EPA should work closely with the centres forming part of WLI and, as appropriate, include a representative of such centres on their Wetland CEPA Task Forces, or appropriate mechanism.

    f. The WLI network's experiences in establishing education centres will be documented and distributed to help others wishing to do likewise.

48. **Seek to establish environment and wetland education centres** - Under the Outreach Programme these facilities are considered a vital element of implementing a Wetland CEPA Action Plan. Above can be seen the range of functions that such centres can provide, apart from offering hands-on experience at wetland environments. Experience also shows that such centres can provide considerable local economic benefit through eco-tourism. In formulating national Wetland CEPA Action Plans, Contracting Parties are urged to consider including provisions for the future establishment of Environment or Wetland Education Centres which can offer a focus for major awareness raising and educational activities. For countries in economic transition, or developing countries, they may also offer substantial financial benefits for promoting sustainable development.

49. **Involving centres of learning** - Museums, zoos, aquaria, botanic gardens and similar institutions can have much to offer in terms of providing technical advice and education of the general public. These facilities also enjoy great popularity with the general community

and therefore offer excellent venues for including wetlands interests in their work. Contracting Parties are encouraged to establish partnerships and work collaboratively with these centres of expertise to promote the values and importance of wetlands. Under the Outreach Programme, these institutions should be encouraged to join the Wetlands Link International initiative described above.

Appendix I

The priority target groups of the Outreach Programme of the Convention on Wetlands

A: PEOPLE IN GENERAL

Target Group/Individuals	Rationale	Behaviour sought
Landowners (especially those who are responsible for managing wetlands)	These are the people who are making decisions which impact directly on wetlands. Ramsar must inform them and provide them with access to expert information.	Sustainable use of wetlands in accordance with Ramsar's principle of wise use.
Indigenous people and local communities	Many indigenous people and local communities associated with wetlands have great knowledge of managing these ecosystems in a sustainable way. Ramsar should aim to encourage the sharing of this experience with other wetland managers.	Sharing of indigenous and community-based knowledge relating to the sustainable use of wetlands and their resources. Continuing sustainable use of wetlands by the indigenous peoples of the world.
Women	Engaging more women in wetland management is a priority, as in many cultures they tend to be more entrepreneurial in the family unit and more amenable to changing lifestyle habits. They may also tend to communicate more often with the children within the family.	The involvement of the whole family in promoting and achieving the sustainable (wise) use of wetlands.
Children	Children are the next generation of environmental managers/caretakers, and Ramsar must ensure that they are aware of the importance of wetlands and how to use them wisely.	Youth taking responsibility for the conservation and wise use of wetlands.
National and local non-government organizations	In many countries local NGOs are vital for achieving action. They need to have available to them expert information.	Assisting, encouraging and facilitating the wise use of wetlands at all levels.
Those responsible for electronic and print media	Conveying positive and informative messages about wetlands to the general community can be accelerated through news and other stories in the electronic and print media.	Recognition of the many functions, services and benefits provided by wetlands and to see this reflected in greater and more informed media coverage of wetland issues.
Community leaders and prominent people – athletes, sports people, religious leaders,	Community leaders can use their public profile to draw attention to issues, and those who have empathy for	Promoting the ideals and principles of the Ramsar Convention to raise community awareness and

artists, royalty, etc.	wetland conservation may be ideal ambassadors to promote the Ramsar message.	dispel the continuing negative images of wetlands.

B) GOVERNMENTS AT ALL LEVELS

Target Group/Individuals	Rationale	Behaviour sought
Environmental policy makers and planners within local administrations, provincial/state and national government administrations.	These officials are key decision-makers at the local level and sub-regional and national scales. Their actions can impact directly on wetlands, positively or negatively, either at the local level or catchment/river basin scale.	To have wetlands considered for all their functions, services and benefits in decision making and planning processes so as to see no further losses or degradation. To see these officials seeking to restore or rehabilitate wetlands as deliberate environmental management tools.
Wetland site managers (wardens, rangers, etc.) within local, provincial/state and national government administrations.	These people have a special need to receive advice on the best practices in managing wetland ecosystems, especially where they are responsible for managing a Ramsar site.	Sustainable use of wetlands in accordance with Ramsar's principle of wise use.
National Administrative Authorities of the Ramsar Convention	They should have the best information at their disposal for application and dissemination.	Responding to all obligations and expectations imposed by the Ramsar Convention, and to be creating the necessary policy, administrative and programme frameworks for action at all levels. To be working in partnership with those responsible for other international and regional environment conventions.
National Administrative Authorities and Focal Points for other environment-related Conventions	If there is to be a more integrated approach to managing land and water resources, including wetlands, there is a need to create greater understanding of and empathy for the Ramsar Convention, among those implementing the other Conventions.	To be working in partnership with those responsible for implementing the Ramsar Convention, and all other international and regional environment conventions, to achieve integrated programmes for implementation.

National consultative and advisory committees for the Ramsar Convention and other environment-related Conventions (such as National Ramsar Committees).	If there is to be a more integrated approach to managing land and water resources, including wetlands, there is a need to create greater understanding of and empathy for the Ramsar Convention among those advising governments on implementation of Ramsar and the other Conventions.	Responding to all obligations and expectations imposed by the Ramsar Convention, and to be creating the necessary policy, administrative and programme frameworks for action at all levels. To be working in partnership with those responsible for implementing the Ramsar Convention, and all other international and regional environment conventions, to achieve integrated programmes for implementation.
The Ministers responsible for all sustainable development portfolios and environment-related Conventions as well as Members of Parliament - National, State/Provincial and local.	Ramsar needs to gain the support of these Ministers and all government members as they have direct input to policy setting, budget allocation, etc. Members of Parliament (those in the opposition parties) may be in this position in the future.	Recognition of the values of using the Ramsar Convention as a positive tool for promoting sustainable use of wetlands and water resources.
National aid agencies, bilateral donors	The Convention needs to ensure that there is a good general understanding about what it does within those organizations that are dealing with governments on a range of sustainable development issues. Ramsar must ensure that the relevant officials are well briefed and able to support Ramsar principles through on-ground projects in the Contracting Parties.	Support for projects which are consistent with Ramsar's wise use principle and conversely to not support projects which will result in wetland destruction or degradation.
Ambassadors and the staff of overseas missions.	It is important that these officials fully understand the Ramsar Convention and *modus operandi* so that national governments can be better informed.	Recognition of the values of using the Ramsar Convention as a positive tool for promoting sustainable use of wetlands and water resources.

C) INTERNATIONAL AND REGIONAL ORGANIZATIONS

Target Group/Individuals	Rationale	Behaviour sought
Global organizations – World Bank, Global Environment Facility, United Nations Development Programme, United Nations Environment Programme, Global Water	The Convention needs to ensure that there is a good general understanding about what it does within those organizations that are dealing with governments on range of sustainable development	Support for projects which are consistent with Ramsar's wise use principle and conversely to not support projects which will result in wetland destruction or degradation.

Partnership, etc.	issues. Where the organizations have funding programmes, Ramsar must ensure the relevant officials are well briefed and able to support Ramsar principles through on-ground projects in the Contracting Parties.	
Regional organizations – South Pacific Regional Environment Program, European Commission, Southern Africa Development Community, Regional Development Banks, etc.	As above.	As above.
Global NGO partners and other international and regional NGOs	Ramsar's four official NGO partners (IUCN, WWF, Wetlands International, and BirdLife) are all active and effective in promoting the Ramsar Convention. There is a need to involve more of these regional and international NGOs in communicating the Ramsar message.	Assisting, encouraging and facilitating the wise use of wetlands at all levels.
The secretariats of other environment-related instruments (CBD, CCD, CMS, FCCC, CITES, World Heritage, MAB)	This is essential if there is to be increasing synergy among the Conventions at the global and national scales.	To be working in partnership with those responsible for implementing the Ramsar Convention, and all other international and regional environment conventions, to achieve integrated programmes for implementation.

D) THE BUSINESS SECTOR

Target Group/Individuals	Rationale	Behaviour sought
Potential sponsors, supporters	Ramsar promotes sustainable use of wetlands and must therefore engage with the business sectors to ensure that the activities being undertaken by them are not acting contrary to the objectives of the Convention.	Sponsorship support for projects which are consistent with Ramsar's wise use principle and conversely to not undertake or support projects which will result in wetland destruction or degradation.
Key business sectors • water and sanitation	Within the business sectors these, and some others, are the industries which have the potential for major	Support for activities which are consistent with Ramsar's wise use principle and conversely to not

• irrigation and water supply • agriculture • mining • forestry • fishing • environmental managers • tourism	negative impacts on wetlands. Ramsar must promote practices within these industries to ensure that their activities are not resulting in wetland loss.	support or undertake projects which will result in wetland destruction or degradation. Assisting, encouraging and facilitating the wise use of wetlands at all levels.
Professional Associations	Ramsar should encourage the application of Ramsar Wise Use practices through these professional associations.	Assisting, encouraging and facilitating the wise use of wetlands at all levels.

E) THE EDUCATION SECTOR AND LEARNING INSTITUTIONS

Target Group/Individuals	Rationale	Behaviour sought
Education ministries, curriculum development authorities, examination boards and universities	All these can assist with gaining the inclusion of wetland conservation and wise use issues in school and other formal curricula.	Support for the implementation of the relevant components of appropriately developed Wetland CEPA Action Plans based on this Outreach Programme.
National and international teachers' associations	The incorporation of Ramsar principles into curricula and learning programmes generally can be accelerated through working collaboratively with teacher associations.	Support for the implementation of the relevant components of appropriately developed Wetland CEPA Action Plans based on this Outreach Programme.
National and international networks, associations and councils of environmental education	Wetlands and water issues can be incorporated into the curricula and other materials being developed by these organizations.	Support for the implementation of the relevant components of appropriately developed Wetland CEPA Action Plans based on this Outreach Programme.
Wetland/ Environment Centers, Zoos, Aquaria, Botanic Gardens, etc.	These are ideal venues for promoting the Ramsar message and efforts should be intensified, in order to have suitable information and materials available	Support for the implementation of the relevant components of appropriately developed Wetland CEPA Action Plans based on this Outreach

	within them.	Programme.
National and international networks of libraries.	The library networks provide an excellent avenue for making information on Ramsar and wetlands more accessible to the general community.	Support for the implementation of the relevant components of appropriately developed Wetland CEPA Action Plans based on this Outreach Programme.

Appendix II

About the Wetland Link International (WLI) programme of The Wildfowl & Wetlands Trust (United Kingdom)

In 1990 The Wildfowl & Wetlands Trust (WWT), a U.K.-based NGO, created the Wetland Link International (WLI) programme, designed to help organizations throughout the world to develop new, and enhance existing, wetland education centres. Beginning with a core group of centres from Australia, France, Hong Kong, Italy, New Zealand, Singapore, Trinidad & Tobago, the U.K., and the U.S.A., the programme (affectionately known as 'Wellie' from 'WLI') grew to over 900 individuals, groups and organizations from over 100 countries logged onto the WLI database.

A twice-yearly newsletter is produced and remains the main organ of communication within the network. Projects on a one-to-one basis have been organized over the past nine years including training, centre development, and broader education and public awareness programmes.

Initial funding for the programme came from commercial sources, but for the past five years WWT has supported the administration of the programme and the salary of its Coordinator. Unfortunately, this funding ceased as of May 1998.

WWT plans to continue to operate the programme and is actively seeking funding to develop it further. Within a revitalised WLI, WWT will broaden the focus of the programme in order to assist individuals, organizations and agencies in the development of programmes of education and communication for wetlands both at centres and beyond. A key tool will be the formation of a 'Learning Zone' within WWT's Web site within which will be housed a database on wetland education and communication resources and key information to help in the development of wetland education centres.

Background on WWT

This U.K.-based organization with a 50+ year history operates eight visitor centres within the country and is presently developing a ninth at The Wetland Centre, London – and it has helped a large number of individuals, organizations, and agencies to develop their own versions throughout the world. Its most famous centre is at Slimbridge, in the west of England, where Sir Peter Scott founded the organization in 1946.

Up to 750,000 people come to WWT Centres each year - this number is expected to rise above 1 million in the year 2000 with the opening of the London centre.

Heightening public awareness of, and education about, the values and benefits of wetlands is a key objective of the organization and WWT has developed many programmes designed to support this, including the Pondwatch and Waterlands campaigns (1988-94), Explorer programmes for schools, the interpretative/exhibit development programmes (including creation of Discovery Centres, Learning through Play centres, etc.). WWT also coordinates the Education and Awareness Specialist Group of Wetlands International.

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Resolution VII.10

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Wetland Risk Assessment Framework

1. RECALLING Article 3.2 of the Convention which states that Contracting Parties *"shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List [of Wetlands of International Importance] has changed, is changing, or is likely to change as the result of technological developments, pollution or other human interference*";

2. FURTHER RECALLING that in response to Article 3.2 of the Convention, the Cconference of the Contracting Parties has established the Record of sites included in the Ramsar List where change in ecological character had occurred, was occurring, or was likely to occur (the Montreux Record: Recommendation 4.8) and guidelines for its operation (Resolution 5.4);

3. ALSO AWARE that in response to Recommendation 5.2, the Scientific and Technical Review Panel (STRP) prepared working definitions of ecological character, change in ecological character, and guidelines for describing and maintaining ecological character that were adopted through Resolution VI.1;

4. NOTING that paragraph 9 of Resolution VI.1 called for assessment in the 1997-99 triennium of the working definitions of ecological character and change in ecological character, as well as the guidelines for describing and maintaining ecological character;

5. ALSO NOTING that paragraph 11 of Resolution VI.1 called for the development of early warning systems for detecting, and initiating action in response to, change in ecological character;

6. FURTHER NOTING that in order to formulate advice on the above two matters, an expert workshop was held in April 1998, which reported its findings to the 7th meeting of the STRP which followed immediately thereafter;

7. CONSCIOUS that in the 1997-99 triennium the STRP, as part of its Work Plan, has undertaken a review of the application of the *Guidelines on management planning for Ramsar sites and other wetlands*, adopted by Resolution 5.7, and that this has shown little inclusion of monitoring schemes or reliance on early warning indicators for detecting change in ecological character;

8. ACKNOWLEDGING that Technical Session IV of this Conference on "Tools for assessing and recognizing wetland values" had presented to it and considered in detail the annex to this resolution entitled *Wetland Risk Assessment Framework*; and

9. EXPRESSING ITS APPRECIATION to the authors of the annex to this Resolution for providing their combined advice and guidance, based on their experience, so that Contracting Parties are equipped with specific guidelines to assist them with meeting their obligations under Article 3.2 of the Convention;

THE CONFERENCE OF THE CONTRACTING PARTIES

10. ADOPTS as guidance for the Contracting Parties the annex to this Resolution entitled *Wetland Risk Assessment Framework;*

11. FURTHER ADOPTS the following definitions for ecological character and change in ecological character as recommended by the STRP following their assessment of the working definitions for the same adopted by Resolution VI.1:

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

12. URGES Contracting Parties to note and apply the attached guidance, which provides a basis for assessing the major causes of change in ecological character – changes to the water regime; water quality; physical modification; exploitation of biological products; and introduction of exotic species;

13. CALLS UPON Contracting Parties to ensure that their preparation of management plans for sites included in the Ramsar List and other wetlands includes, as an integrated element, early warning indicators as part of a monitoring programme based on the framework adopted by Resolution VI.1; and

14. ENCOURAGES the STRP to compile, with information submitted by Contracting Parties and from other relevant sources, a report outlining cases where early warning systems for wetlands are in place or are being established, and of the experience gained in maintaining these systems.

Annex

Wetland Risk Assessment Framework

Contents:

Introduction
Types of change in ecological character
Wetland risk assessment
Early warning indicators
Ideal attributes of early warning indicators
Examples of early warning indicators
Responsiveness of early warning indicators

Introduction

1. The Convention on Wetlands (Ramsar, Iran, 1971) has developed this conceptual framework for wetland risk assessment to assist its Contracting Parties with predicting and assessing change in ecological character of the sites included in the List of Wetlands of International Importance and other wetlands. This Framework provides guidance on how to go about predicting and assessing change in the ecological character of wetlands and promotes, in particular, the usefulness of early warning systems. The *Wetland Risk Assessment Framework* is presented as an integral component of the management planning processes for wetlands.

2. The Ramsar Convention's processes for assessing and maintaining the ecological character of wetlands comprise many elements and are central to the Convention's concept of wise use and to the obligations of Contracting Parties under the treaty. These elements include:

   a. the Criteria for Identifying Wetlands of International Importance (Resolution VII.11);
   b. the Montreux Record of Ramsar sites where changes in ecological character have occurred, are occurring, or are likely to occur (Resolution 5.4); and
   c. the Working Definitions, Guidelines for Describing and Maintaining the Ecological Character of Listed Sites, and Guidelines for Operation of the Montreux Record (Resolution VI.1).

3. Resolution VI.1, adopted at the 6th Conference of the Contracting Parties to the Convention in 1996, also presented a framework for designing an effective wetland monitoring programme and called for the development of appropriate early warning systems for detecting adverse change and for assessment of the working definitions of "ecological character" and "change in ecological character". In the triennium that followed, these working definitions were reviewed and amended as shown in Resolution VII.10 which also adopts this *Wetland Risk Assessment Framework*.

Types of change in ecological character

4. The causes of adverse change in the ecological character of a wetland can be grouped in five broad categories:

a. changes to the water regime;
b. water pollution;
c. physical modification;
d. exploitation of biological products; and
e. introduction of exotic species.

5. The relative importance of these causes varies regionally, nationally and even from site to site. In addition, the above causes of change are often inter-linked, and it can be difficult to separate the effects of each of them. A simpler way to view change in ecological character is by the **type of change** as opposed to the **cause of change**. In accordance with the definition of change in ecological character (refer to paragraph 11 of Resolution VII.10 adopting this Framework), the type of change can be considered under three general headings – **biological, chemical and physical**.

6. In outlining an appropriate framework and methods for the prediction of change in ecological character of wetlands, site managers are primarily concerned with **types of change**. Specifically, they are concerned with adverse change caused by human activity.

Wetland Risk Assessment

7. To ensure the appropriate application of early warning indicators, it is essential that the processes of selecting, assessing, analysing and basing decisions on indicator responses be contained within a structured but flexible form of assessment framework. In the context of the Ramsar Convention, a modified ecological risk assessment framework, termed **wetland risk assessment**, is encouraged. The framework aims to outline how Wetland Risk Assessment can act as the 'vehicle' for driving the process of predicting and assessing change in ecological character, with a particular emphasis on the application of early warning techniques.

8. A basic model for wetland risk assessment, modified from a generalised ecological risk assessment paradigm, is shown in Figure 1. It outlines six steps that are described in the following paragraphs.

9. **Step 1 - Identification of the problem.** This is the process of identifying the nature of the problem and developing a plan for the remainder of the risk assessment based on this information. It defines the objectives and scope of, and provides the foundation for, the risk assessment. In the case of a chemical impact, it would include obtaining and integrating information on the characteristics (for example, properties, known toxicity) and source of the chemical, what is likely to be affected, and how is it likely to be affected, and importantly, what is to be protected.

10. **Step 2 - Identification of the adverse effects.** This step evaluates the likely extent of adverse change or impact on the wetland. Such data should preferably be derived from field studies, as field data are more appropriate for assessments of multiple impacts, such as occur on many wetlands. Depending on the extent of adverse change and available resources, such studies can range from quantitative field experiments to qualitative observational studies. For chemical impacts, on-site ecotoxicological bioassays constitute appropriate approaches, whereas for changes caused by weeds or feral animals, on-site observation and mapping may be all that is required.

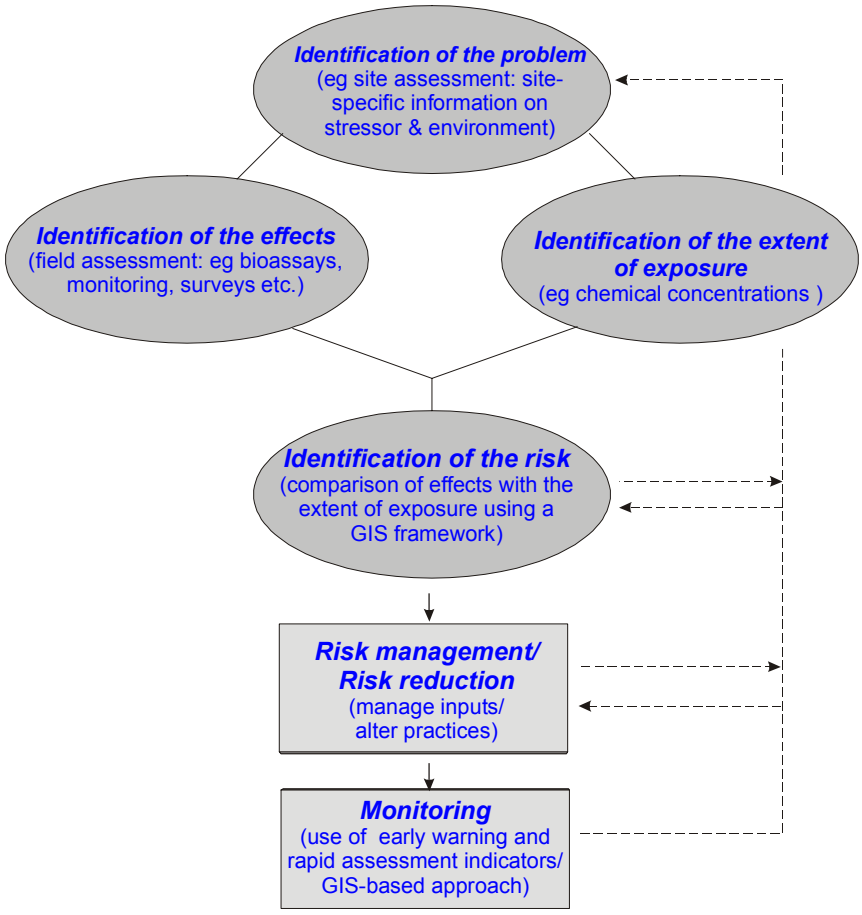

Figure 1: Suggested model of wetland risk assessment

11. **Step 3 - Identification of the extent of the problem.** This step estimates the likely extent of the problem on the wetland of concern by using information gathered about its behaviour and extent of occurrence elsewhere. In the case of a chemical impact, this includes information on processes such as transport, dilution, partitioning, persistence, degradation, and transformation, in addition to general chemical properties and data on rates of chemical input into the environment. In the case of an invasive weed, it might include detailed information on its entry into an ecosystem, rate of spread and habitat preferences. While field surveys most likely represent the ideal approach, use of historical records, simulation modeling, and field and/or laboratory experimental studies all represent alternative or complementary methods of characterising the extent of the problem.

12. **Step 4 - Identification of the risk.** This involves integration of the results from the assessment of the likely effects with those from the assessment of the likely extent of the problem, in order to estimate the likely level of adverse ecological change on the wetland. A range of techniques exist for estimating risks, often depending on the type and quality of the likely effects and their extent. A potentially useful technique for characterising risks in wetlands is via a GIS-based framework, whereby the results of the various assessments are overlaid onto a map of the region of interest in order to link effects to impact. In addition to estimating risks, such an approach would also serve to focus future assessments and/or monitoring on identified problem areas.

13. **Step 5 - Risk management and reduction.** This is the final decision-making process and uses the information obtained from the assessment processes described above, and it attempts to minimize the risks without compromising other societal, community or environmental values. In the context of the Ramsar Convention, risk management must also consider the concept of *wise use* and the potential effects of management decisions on this. The result of the risk assessment is not the only factor that risk management considers; it also takes into account political, social, economic, and engineering/ technical factors, and the respective benefits and limitations of each risk-reducing action. It is a multidisciplinary task requiring communication between site managers and experts in relevant disciplines.

14. **Step 6 - Monitoring.** Monitoring is the last step in the risk assessment process and should be undertaken to verify the effectiveness of the risk management decisions. It should incorporate components that function as a reliable early warning system, detecting the failure or poor performance of risk management decisions prior to serious environmental harm occurring. The risk assessment will be of little value if effective monitoring is not undertaken. The choice of endpoints to measure in the monitoring process is critical. Further, a GIS-based approach will most likely be a useful technique for wetland risk assessment, as it incorporates a spatial dimension that is useful for monitoring adverse impacts on wetlands.

Early warning indicators

15. The underlying concept of early warning indicators is that effects can be detected, which are in fact, precursors to, or indicate the onset of, actual environmental impacts. While such 'early warning' may not necessarily provide firm evidence of larger scale environmental degradation, it provides an opportunity to determine whether intervention or further investigation is warranted. As such, early warning indicators can be defined as *"the measurable biological, physical or chemical responses to a particular stress, preceding the occurrence of potentially significant adverse effects on the system of interest*".

16. Of the five major types of change in ecological character described in paragraph 4 above, chemical change has received by far the most attention in terms of its environmental impacts and their prediction. As a result, the vast majority of early warning techniques have been developed to assess the impacts of chemicals on aquatic ecosystems. It is recommended that further assessments be carried out to identify appropriate indicators for the other major types of change in ecological character. Examples of early warning indicators included in this Framework mostly represent biological and physico-chemical assessment approaches to predict or forewarn of important chemical changes (that is, pollution) on wetlands.

17. The choice of indicators follows a hierarchy of other decisions required by managers in setting up monitoring programs to assess ecosystem health. Thus, after identifying the issue of concern or potential concern and determining the environmental values to be protected, managers should then be concerned with identifying **assessment objectives** for protection of the wetland. As an example, the following can be used:

    a. **Early detection of acute and chronic changes,** providing pre-emptive information so that ecologically important impacts are avoided.
    b. **Assessing the ecological importance of impact** through measurement of biodiversity, conservation status and/or population, community or ecosystem-level responses.

18. To determine effects upon the ecosystem as a whole – or the ecological importance of effects that are observed – measurement of ecosystem 'surrogates' is usually required. Typically these surrogates are communities or assemblages of organisms, or habitat or keystone-species indicators where these have been closely linked to ecosystem-level effects. Information on the ecological importance of adverse effects is best met in programs that have regional or national coverage and that encompass a full disturbance gradient, that is, covering a range of sites that have not been degraded to those that have been severely degraded. Rapid assessment methods can provide this context.

19. In selecting an indicator it is important to be mindful of the definition of the ecological character of a wetland (refer to paragraph 11 of Resolution VII.10 adopting this Framework) and its emphasis on the **biological, chemical and physical** components of the ecosystem. Therefore, it may be useful to select early warning indicators according to which of the above three components is/are considered more susceptible to change. The three components are intricately linked. Although these interactions exist, the *Wetland Risk Assessment Framework* provides a process to assist in identifying the most appropriate indicators to assess or predict change.

20. The ecological relevance of an early warning indicator should be considered. However, the concepts of early warning and ecological relevance can conflict. The types of biological responses that can be measured, and their relationship to ecological relevance and early warning capability, is generalised in Figure 2. As an example, biomarker responses can offer exceptional early warning of potential adverse effects, but there exists very little evidence that observed responses result, or culminate in adverse effects at an individual level, let alone the population, community or ecosystem level. Therefore, they cannot be considered ecologically relevant. If the primary assessment objective is that of early detection, then it is likely that it will be at the expense of ecological relevance, while the opposite would probably apply if knowledge of the ecological significance of effects was considered.

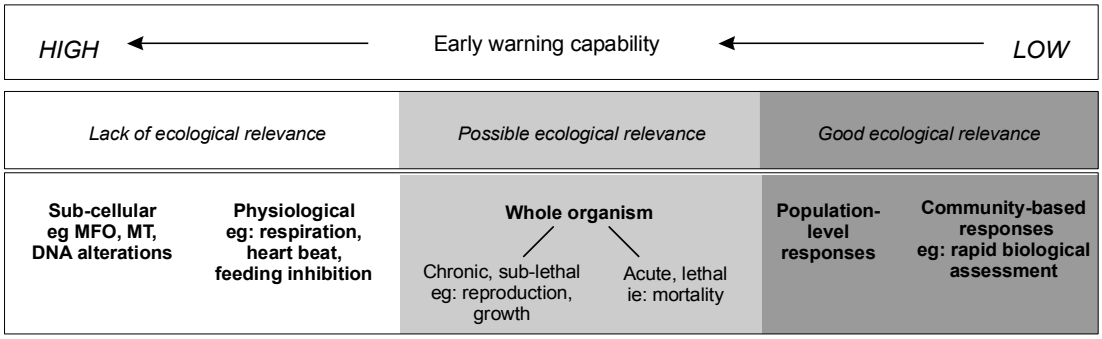

Figure 2: Relationship of ecological relevance and early warning capability to measurable biological responses

Ideal attributes of early warning indicators

21. To have potential as an early warning indicator, a particular response should be:

    a. **anticipatory**: it should occur at levels of organisation, either biological or physical, that provide an indication of degradation, or some form of adverse effect, before serious environmental harm has occurred;
    b. **sensitive**: in detecting potential significant impacts prior to them occurring, an early warning indicator should be sensitive to low levels, or early stages of the problem;
    c. **diagnostic**: it should be sufficiently specific to a problem to increase confidence in identifying the cause of an effect;
    d. **broadly applicable**: it should predict potential impacts from a broad range of problems;
    e. **correlated to actual environmental effects/ecological relevance**: an understanding that continued exposure to the problem, and hence continued manifestation of the response, would usually or often lead to significant environmental (ecosystem-level) adverse effects;
    f. **timely and cost-effective**: it should provide information quickly enough to initiate effective management action prior to significant environmental impacts occurring, and be inexpensive to measure while providing the maximum amount of information per unit effort;
    g. **regionally or nationally relevant**: it should be relevant to the ecosystem being assessed;
    h. **socially relevant**: it should be of obvious value to, and observable by stakeholders, or predictive of a measure that is socially relevant;
    i. **easy to measure**: it should be able to be measured using a standard procedure with known reliability and low measurement error;
    j. **constant in space and time**: it should be capable of detecting small change and of clearly distinguishing that a response is caused by some anthropogenic source, not by natural factors as part of the natural background (that is, high signal to noise ratio);
    k. **nondestructive**: measurement of the indicator should be nondestructive to the ecosystem being assessed.

22. The importance of the above attributes cannot be over-emphasized, since any assessment of actual or potential change in ecological character will only be as effective as the

indicators chosen to assess it. However, an early warning indicator possessing all the ideal attributes cannot exist, as in many cases some of them will conflict, or will simply not be achievable.

Examples of early warning indicators

23. A number of early warning indicators have been developed for the assessment of wetland ecosystems. These are placed into three broad categories:

    a. rapid response toxicity tests;
    b. field early warning tests; and
    c. rapid assessments.

24. A general description of these, including potential limitations, is outlined in Table 1. Each of the techniques may meet different objectives in water quality assessment programs. Although the majority of early warning indicators are of a biological nature, physico-chemical indicators do exist and often form the initial phase of assessing water quality.

Table 1: Role and possible limitations of types of early warning indicators

Type of response and role	Potential limitations
a. Rapid response toxicity tests Laboratory toxicity assessment of sensitive whole organism responses (for example, growth, reproduction) with rapid turn-around of results. They are predictive tests that potentially enable timely and flexible management actions (for example determining a safe dilution for discharge of effluents of changing composition) to be implemented.	Ecological relevance of measured sub-lethal responses (for example, growth, reproduction) has generally not been established.
b. Field early warning tests Field measurement of sensitive sub-lethal organism responses through monitoring or assessment. They can provide pre-emptive or preventative information so that substantial and ecologically important impacts are avoided.	Ecological relevance of measured responses (especially biochemical biomarkers) has generally not been established.
c. Rapid assessments Standardised, rapid and cost-effective monitoring of various forms can provide 'first-pass' assessment of the ecological condition of sites over large areas. Broad coverage has potential to identify 'hot spots' and hence pre-empt and prevent similar occurrences elsewhere.	Output is usually coarse and generally only detects relatively severe impacts.

Rapid response toxicity tests

25. These represent laboratory toxicity bioassays designed to provide rapid and sensitive responses to one or more chemicals. They provide an indication that there may be a risk of adverse effects occurring at higher levels of biological organization (for example, communities and ecosystems). Laboratory toxicity tests are of particular use for a chemical or chemicals yet to be released into the aquatic environment (for example, a new pesticide or a pre-release waste water). They provide a basis upon which to make decisions about safe concentrations or dilution/release rates, thereby eliminating, or at least minimizing, adverse impacts on the aquatic environment. However, there are major differences in the ecological relevance of responses that can be measured.

Early warning field tests

26. This group comprises a range of techniques that are grouped because they are used to measure responses or patterns in the field and thus provide a more realistic indication of effects in the environment. In contrast to laboratory rapid response toxicity tests, early warning field tests predict and/or assess the effects of existing chemicals. Some of the techniques can also be applied to biological and physical problems.

27. **Direct toxicity assessment.** This is the use of toxicity tests to assess and monitor the consequences of chemicals in aquatic ecosystems (for example, waste water releases, contamination of waterways with pesticides and other agricultural chemicals). *In situ* toxicity assessment of a waterbody receiving a pollutant input serves to monitor the

effectiveness of predictions based on the rapid response toxicity tests described above (paragraph 25). However, assuming the measured responses are sensitive, results can also provide early warning of potential impacts at higher levels of biological organization.

28. **Phytoplankton monitoring.** Due to their nutritional requirements, their position at the base of aquatic food webs, and their ability to respond rapidly and predictably to a broad range of pollutants, phytoplankton represent perhaps the most promising early warning indicators of change in ecological character of wetlands due to chemicals. In addition, their sensitivity to changes in nutrient levels makes them ideal indicators for assessing eutrophication. They can be used in the types of toxicity bioassays described above, for rapid response toxicity tests and direct toxicity assessment. Such methods are rapid, inexpensive and sensitive, and can be carried out in the laboratory or in the field, using either laboratory cultured algae or natural phytoplankton assemblages. For example, algal fractionation bioassays (AFB) assess the effects of pollutants on the functional parameters (for example, C^{14} uptake, biomass) within various size fractions of a natural assemblage of algae. Structural indicators, such as species composition and size assemblage shifts have also been found to be particularly sensitive.

29. **Biomarkers.** These can be defined as biochemical, physiological, or histological indicators of either exposure to, or effects of, particular chemicals at the sub-organismal or organismal level. The underlying concept is that changes to the biochemistry, physiology or histology of individual organisms often precede effects at the organismal and therefore, potentially, population, community and ecosystem level. Briefly, aquatic animals are collected from the site(s) of interest and a reference site, and the biomarkers assessed and compared. A modification of this is to place 'caged' micro-organisms in the environment of interest, and to measure biomarker responses following a pre-determined period of time. Biomarkers have been used to predict potential adverse effects of a number of pollutant types, including organic chemicals such as pesticides and petroleum hydrocarbons, heavy metals, and complex mixtures (for example, industrial effluents).

30. Three potentially useful types of biomarkers are mixed function oxidase, vitellogenin which is a biomarker of potential endocrine disruption, and bioaccumulation. Many biomarkers have been demonstrated to give early warning of potential adverse environmental effects of particular chemicals or complex effluents. They provide the most advanced form of biological early warning.

Rapid assessments

31. These are being increasingly used for water quality monitoring, having the appeal of enabling ecologically-relevant information to be gathered over wide geographical areas in a standardised fashion and at relatively low costs. The trade-off in these virtues is that rapid assessment methods are usually relatively 'coarse' and hence are not designed to detect subtle impacts. Desired or essential attributes of rapid assessment include:

    a. measured response is widely regarded as adequately reflecting the ecological condition or integrity of a site, catchment or region (that is, ecosystem surrogate);
    b. approaches to sampling and data analysis are highly standardised;
    c. response is measured rapidly, cheaply and with rapid turnaround of results;
    d. results are readily understood by non-specialists; and
    e. response has some diagnostic value.

32. A range of rapid assessment approaches is being developed. These include rapid biological assessment using invertebrates, monitoring of birdlife, and remote sensing. These all have particular applications and in many cases still require further development.

33. Physico-chemical monitoring has also been recognised as being a vital component of an integrated assessment program that utilises biological measures for assessing the condition of waterways. The monitoring of standard physico-chemical parameters can be of use in several ways. Firstly, it provides a record of the physico-chemical characteristics of the waterbody, which when continued over an extended period, provides a record of the variation in the characteristics over time. Secondly, many physico-chemical parameters have the ability to alter the toxicity of particular pollutants. The majority of standard physico-chemical water quality parameters are simple, inexpensive and quick to measure, and should be used to complement any ecotoxicological or biological monitoring study.

Responsiveness of early warning indicators

34. Acceptance of the need for early warning indicators in a monitoring program implies that information on early change is acted upon and an agreed management plan is in place. The initial stages of this management plan may entail a series of iterations amongst negotiating stakeholders about the type and size of the change that are deemed important, as well as the relative costs of inferring that there is an impact when in fact there is none, and of failing to detect a real impact. These are important statistical parameters that must be agreed, as they stipulate the confidence with which the results of the monitoring are accepted.

35. Inclusion of early warning indicators in a monitoring program implies a precautionary management approach, that is, intervention before real and important ecosystem-level changes have occurred. Intervention in response to changes in an early warning indicator, therefore, occurs at some conservative and generally arbitrary threshold or trigger value in the measured response.

36. The most powerful impact assessment programs will generally be those that include two types of indicator, namely those associated with early warning of change and those (regarded as) closely associated with ecosystem-level effects. The 'ecosystem-level'-type indicator might include ecologically important populations (for example, keystone species) or habitat, or communities of organisms that serve as suitable ecosystem 'surrogates'. Indicators used in rapid assessment would also normally serve this role. With both types of indicators measured in a monitoring program, information provided by 'ecosystem-level' indicators may then be used to assess the ecological importance of any change observed in an early detection indicator.

37. Just as for early warning indicators, thresholds of change and other statistical decision criteria for the 'ecosystem-level' indicators must also be negotiated and decided upon in advance. Specific decisions on thresholds of change are an issue that can only be dealt with effectively on a site-specific basis, whilst taking account of the ecological values and wise use of the site.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Strategic framework and guidelines for the future development of the List of Wetlands of International Importance

1. RECALLING that Article 2 of the Convention requires Contracting Parties to "*designate suitable wetlands within their territory for inclusion in a List of Wetlands of International Importance*";

2. FURTHER RECALLING that following consideration of the issue at the first three Conferences of the Contracting Parties, the 4th Conference, in Recommendation 4.2, adopted *Criteria for Identifying Wetlands of International Importance*;

3. ACKNOWLEDGING that Resolution VI.2 of the 6th Conference of the Contracting Parties (COP6) adopted further specific criteria for identifying Wetlands of International Importance based on fish, which also included in its Annex detailed guidelines for the application of these criteria;

4. ALSO RECALLING Resolution VI.3 of Ramsar COP6, entitled *Review of the Ramsar Criteria for Identifying Wetlands of International Importance and the accompanying Guidelines,* which requested that the Scientific and Technical Review Panel (STRP) undertake further reviews of the Criteria and submit these for consideration by the Standing Committee and possibly by COP7;

5. AWARE that Action 6.2.3 of the Strategic Plan 1997-2002 urges Contracting Parties to give priority attention to the designation of new sites from "*wetland types currently under-represented on the Ramsar List, and, in particular, when appropriate, coral reefs, mangroves, sea-grass beds, and peatlands*";

6. NOTING Action 6.3.1 of the Strategic Plan which establishes that the Criteria shall be kept "*under review to ensure they reflect global wetland conservation priorities and values*";

7. BELIEVING that the application of the *Criteria for Identifying Wetlands of International Importance* should be undertaken within a strategic framework at the global, supranational/regional and national levels, in order that the Convention can move more rapidly towards achieving a global network of sites representative of all wetland types, which also contributes to the conservation of biological diversity and to maintaining the ecological and hydrological functions of wetlands that sustain human populations;

8. RECOGNIZING that Technical Session II of this COP has reviewed in detail the draft *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance*;

9. ALSO RECOGNIZING that Technical Session IV of this COP has reviewed the information available on the world's wetland resources and identified a number of priorities for inventory to improve this essential information base, in order to form the foundation for planning and future priority-setting for Ramsar site designations (Resolution VII.20);

10. FURTHER NOTING Decision IV/4 from COP4 of the Convention on Biological Diversity relating to the status and trends of the biological diversity of inland waters, and especially Annex I, Part B, referring to collaboration between the respective technical bodies of the two Conventions to "*achieve desirable convergence between the approaches on criteria and classification of inland water ecosystems"*;

11. MINDFUL ALSO of the Memoranda of Understanding with the Convention on Migratory Species and with the World Heritage Convention and the Memorandum of Cooperation with the Convention to Combat Desertification, and the cooperative site-based actions identified therein;

12. EXPRESSING ITS APPRECIATION to the members of the STRP and the others that have contributed to the review of the Criteria and development of the Strategic Framework, especially the Convention's International Organization Partners and the officials within the following Ramsar Administrative Authorities who provided informal comment and advice: Australia, Bahamas, Canada, Colombia, Hungary, Indonesia, Malawi, Slovenia, South Africa and the United Kingdom;

THE CONFERENCE OF THE CONTRACTING PARTIES

13. ADOPTS the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* as annexed to this Resolution[1];

14. URGES all Contracting Parties to apply the Strategic Framework, and in particular, to develop at the national, and as appropriate at the regional level, a systematic approach to identifying wetlands for future Ramsar site designation in pursuit of the stated vision for the List of Wetlands International Importance;

15. INVITES Contracting Parties, the Convention's International Organization Partners and local community stakeholders to work, within the long-term strategic framework, to achieve the short-term global target of 2000 Ramsar sites by COP9 in the year 2005;

16. CALLS UPON Contracting Parties (in accordance with Resolution VII.20) also to give priority, where indicated, to wetland inventory programmes in order to provide the necessary information base for applying the Strategic Framework to the maximum extent possible;

17. ENCOURAGES all Contracting Parties to be mindful, when identifying priority sites for designation, of their obligations under Article 5 of the Convention (and the related *Guidelines for international cooperation under the Ramsar Convention*, adopted by Resolution

[1] The *Guidelines for identifying and designating karst and other subterranean hydrological systems as Wetlands of International Importance* (annex to Resolution VII.13) have also been added to the *Strategic Framework*, as instructed by Resolution VII.13.

VII.19), and to ensure that suitable transboundary wetlands and those providing important habitat for migratory wetland-dependent species are given prominence in these considerations;

18. FURTHER CALLS UPON Contracting Parties, where possible and appropriate, to promote the Ramsar sites within their jurisdictions as models or demonstration sites for the implementation of the *Guidelines for the implementation of the wise use concept* (Recommendation 4.10);

19. INSTRUCTS the Ramsar Bureau, at the earliest opportunity, to draw to the attention of the expert scientific and technical bodies of the Convention on Biological Diversity, the Convention on Migratory Species, the Convention on International Trade in Endangered Species (CITES), the World Heritage Convention and the Convention to Combat Desertification, the contents of this Resolution and its Annex, and to seek appropriate future collaboration with its implementation.

Annex

Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands (Ramsar, Iran, 1971)

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I. Introduction

Background

1. At the time of signing, or when depositing their instrument of ratification or accession to the Convention on Wetlands (Ramsar, Iran, 1971), sovereign states are required under Article 2.4 to designate at least one site as a Wetland of International Importance. Thereafter, as prescribed by Article 2.1, each "*Contracting Party shall designate suitable wetlands within its territory for inclusion in the List of Wetlands of International Importance*".

2. Assistance with interpreting the key word "*suitable*", as used in Article 2.1 above, is provided in part by Article 2.2, which states that *"wetlands should be selected for the List on account of their international significance in terms of ecology, botany, zoology, limnology or hydrology. In the first instance wetlands of international importance to waterfowl at any season should be included."*

3. Throughout its evolution, the Convention on Wetlands has developed Criteria for the designation of Wetlands of International Importance (Ramsar sites) which have been kept under constant review. It has supplemented these with regularly updated Guidelines to assist Contracting Parties with their interpretation and application of the Criteria reflecting the development of conservation science.

4. The strategic direction given to the development of the List of Wetlands of International Importance has previously been rather limited. Most notably, the 6th Conference of the Contracting Parties (COP6) urged Parties through the Convention's Strategic Plan 1997-2002, to "*increase the area of wetland designated for the List of Wetlands of International Importance particularly for wetland types that are under-represented either at the global or national levels*" (Operational Objective 6.2).

Purpose

5. At the time of COP7, and as the number of designated Ramsar sites fast approaches 1,000, the Convention on Wetlands has adopted this *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (the Ramsar List). Its purpose is to provide a clearer view, or vision, of the long-term targets or outcomes which the Convention is seeking to achieve through the Ramsar List. Guidance is also provided to assist Contracting Parties in taking a systematic approach to identifying their priorities for future designations, in order to create comprehensive national networks of Ramsar sites, which, when considered at the global level, fulfil the stated vision for the Ramsar List (refer to Section II).

II. The vision, objectives and short-term target for the List of Wetlands of International Importance (the Ramsar List)

The vision of the Ramsar List

6. The Convention on Wetlands has adopted the following vision for the List of Wetlands of International Importance.

> **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.**

7. Such an international network of wetland sites has to be built from coherent and comprehensive networks of Wetlands of International Importance established within the territory of each Contracting Party to the Convention.

Objectives for the Ramsar List

8. In order to realise the vision for the Ramsar List described above, the Contracting Parties, the Convention's International Organization Partners, local stakeholders, and the Ramsar Bureau will work cooperatively towards accomplishing the following four objectives (not necessarily in priority order).

> **Objective 1. To establish national networks of Ramsar sites in each Contracting Party which fully represent the diversity of wetlands and their key ecological and hydrological functions.**

9. 1.1) To have included in the Ramsar List at least one suitable (i.e., internationally important) representative of every natural or near-natural wetland type (see the range of types in Appendix A) present in each biogeographic region (see definition of biogeographic region in Appendix B). These biogeographical regions are as defined globally, supranationally/regionally or nationally, and applied by the Contracting Party in a form appropriate to that Party.

10. 1.2) To give priority in determining suitable sites in relation to wetland type to those wetlands that play a substantial ecological or hydrological role in the natural functioning of a major river basin, lake, or coastal system.

> **Objective 2. To contribute to maintaining global biological diversity through the designation and management of appropriate wetland sites.**

11. 2.1) To review the development of the Ramsar List and further refine the Criteria for identification and selection of Ramsar sites, as appropriate, to best promote conservation of biological diversity and wise use of wetlands at the local, sub-national, national, supranational/regional and international levels.

12. 2.2) To include in the Ramsar List wetlands that include threatened ecological communities or are critical to the survival of endemic species identified as vulnerable, endangered or critically endangered under national endangered species legislation/ programs or international designations such as the IUCN Red List and the Appendices of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) and the Convention on Migratory Species (CMS or Bonn Convention).

13. 2.3) To include in the Ramsar List wetlands critical to the conservation of biological diversity in each biogeographic region (see Glossary for definition).

14 2.4) To include in the Ramsar List wetlands that provide important habitat for plant and animal species at critical stages in their life cycle or during adverse conditions.

15. 2.5) To include in the Ramsar List wetlands that are of direct significance for waterbird and fish species or stocks as determined by the relevant Ramsar site selection criteria (see Section V).

Objective 3. To foster cooperation among Contracting Parties, the Convention's International Organization Partners , and local stakeholders in the selection, designation, and management of Ramsar sites.

16. 3.1) To pursue opportunities between two (or more) Contracting Parties for Ramsar site "twinning" agreements for wetlands along migratory species routes, across common borders, or with similar wetland types or species (Resolution VII.19).

17. 3.2) To undertake other forms of cooperative venture between two or more Contracting Parties that can demonstrate or assist with achieving long-term conservation and sustainable use of Ramsar sites and wetlands in general.

18. 3.3) To encourage and support, where appropriate, a stronger role for and contribution from non-government and community-based organizations in the strategic development of the Ramsar List and subsequent management of Ramsar sites locally, subnationally, nationally, supranationally/regionally, and internationally (Resolution VII.8).

Objective 4. To use the Ramsar site network as a tool to promote national, supranational/regional, and international cooperation in relation to complementary environment treaties.

19. 4.1) To use Ramsar sites as baseline and reference areas for national, supranational/ regional, and international environmental monitoring to detect trends in the loss of biological diversity, climate change, and the processes of desertification.

20. 4.2) To implement conservation and sustainable use demonstration projects at Ramsar sites, which will also provide tangible illustrations of cooperation with appropriate international environment treaties such as the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, the Convention to Combat Desertification, the Convention on International Trade in Endangered Species of Wild Flora and Fauna, the World Heritage Convention, and the Convention on Migratory

Species and its Agreements such as the African-Eurasian Waterbirds Agreement, and regional agreements and cooperative initiatives such as the North American Waterfowl Management Plan, the Western Hemisphere Shorebird Reserve Network, the Asia-Pacific Migratory Waterbird Conservation Strategy 1996-2000, the Mediterranean Wetlands Initiative (MedWet), South Pacific Regional Environment Programme, Southern Africa Development Community (SADC), Association of the South East Asian Nations (ASEAN), the European Union's Natura 2000 network, the Emerald Network of the Bern Convention on the Conservation of European Wildlife and Natural Habitats, the Pan-European Biological and Landscape Diversity Strategy, the Wetlands Programme for the High Andes, the Treaty on Amazon Cooperation, the Central American Commission on Environment and Development (CCAD), etc.

Short-term target for the Ramsar List to the year 2005

21. The Convention stresses the importance of wetlands as rich centres of biological diversity and productivity and as life support systems for human populations, and is concerned at the continuing loss and degradation of wetlands in many parts of the world. In response to this concern, the Convention has set the following short-term target for the Ramsar List.

To ensure that the List of Wetlands of International Importance contains at least 2000 sites by the time of Ramsar's 9th Conference of the Contracting Parties in the year 2005, recognizing that this expansion should take into consideration the long-term vision, strategic objectives, and targets for the Ramsar List adopted by the Convention.

III. Wetlands of International Importance and the Ramsar principle of Wise Use

22. Under the Ramsar Convention on Wetlands the two concepts of wise use and site designation are fully compatible and mutually reinforcing. Contracting Parties are expected to designate sites for the List of Wetlands of International Importance "*on account of their international significance in terms of ecology, botany, zoology, limnology or hydrology"* (Article 2.2), **AND** to *"formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory"* (Article 3.1).

23. Ramsar COP3 (1987) defined wise use of wetlands as "*their sustainable utilisation for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem.*" The Strategic Plan adopted at COP6 (1996) equates "wise use" with sustainable use. Contracting Parties to the Convention also recognize that wetlands, through their ecological and hydrological functions, provide invaluable services, products and benefits enjoyed by, and sustaining, human populations. Therefore, the Convention promotes practices that will ensure that all wetlands, and especially those designated for the Ramsar List, will continue to provide these functions and values for future generations as well as for the conservation of biological diversity.

Ramsar sites and the wise use principle. 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.

24. Article 3.2 of the Convention determines that "*each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change*". Pursuant to this the Ramsar Convention has developed the concept of "ecological character" for wetlands, which is defined as follows:

> *Ecological character is the sum of the biological, physical, and chemical components of the wetland ecosystem and their interactions which maintain the wetland and its products, functions and attributes.* (Resolution VII.10)

25. Contracting Parties are expected to manage their Ramsar sites so as to maintain the ecological character of each site and, in so doing, retain those essential ecological and hydrological functions which ultimately provide its "*products, functions and attributes*". Ecological character is therefore an indication of the 'health' of the wetland and Contracting Parties are expected at the time of designation to describe the site using the approved Ramsar Information Sheet (see Appendix C), in sufficient detail to provide a baseline for subsequent monitoring to detect any changes to these ecological and hydrological attributes. Changes to ecological character outside the natural variations may signal that uses of the sites, or externally derived impacts on the sites, are unsustainable and may lead to the degradation of natural processes and thus the ultimate breakdown of the ecological, biological and hydrological functioning of the wetland.

26. The Ramsar Convention has developed tools for monitoring ecological character and also for the development of management plans for Wetlands of International Importance. In preparing such management plans, which all Contracting Parties have been strongly urged to do, issues such as the impact of human activities on the ecological character of the wetland, the economic and socio-economic values of the site (especially for local communities), and the cultural values associated with the site need to be considered. Contracting Parties have also been strongly encouraged to include within management plans a regime for regular and rigorous monitoring to detect changes to ecological character (Resolution VII.10).

IV. Guidelines for adopting a systematic approach to identifying priority wetlands for designation under the Ramsar Convention

27. The introduction to this Strategic Framework (see Section I) states that its purpose is to provide a clearer understanding, or vision, of the long-term targets or outcomes which the Ramsar Convention is seeking to achieve through the List of Wetlands of International Importance.

28. In the section below, guidance is provided to assist Contracting Parties in taking a systematic approach to identifying priorities for future designations, in order to create coherent, comprehensive national networks of Ramsar sites which, when considered as a global network, will help to fulfil the vision for the Ramsar List.

29. When developing and implementing a systematic approach to identifying the priority wetlands for designation as Ramsar sites, Contracting Parties are urged to consider the following issues.

30. **Review national objectives**. As a precursor to developing a systematic approach for identifying future Ramsar sites, Contracting Parties are urged to give careful consideration to the Objectives described in Section II of this Strategic Framework. When considered within the context of the vision and long-term targets for the List of Wetlands of International Importance, these objectives provide a basis for all subsequent considerations in this area.

31. **Wetland definition, types and biogeographic regions.** For each Contracting Party it is important to reach an understanding at the national level of how the Ramsar definition of a wetland is to be interpreted and on the biogeographic regionalisation to be applied. The Ramsar definition of "wetland" (see Appendix A) is very broad, reflecting the global scale of the Convention, and gives Contracting Parties great scope and flexibility for ensuring compatibility between national, supranational/ regional and international wetland conservation efforts. Importantly, the Convention aims at the listing of natural or semi-natural wetlands, but also allows for the designation of purpose-built, or human-made, wetlands, assuming they satisfy at least one of the Criteria specified in Section V. The Convention's classification system for wetland type (see Appendix A) indicates the full range which Contracting Parties are urged to consider fully in relation to possible listing under the Ramsar Criteria related to representative, rare or unique wetlands (see Section V, Criterion 1).

32. Under Criterion 1, Contracting Parties are expected to identify sites of international importance within an agreed biogeographic regionalisation. The Glossary (see Appendix B) defines this term as "a scientifically rigorous determination of regions as established using biological and physical parameters such as climate, soil type, vegetation cover, etc." Note that for many Contracting Parties, biogeographic regions will be transboundary in nature and will require collaboration between countries to define those wetland types which are representative, unique, etc. In some regions and countries, the term "bioregion" is used as a synonym for "biogeographic region".

33. **Inventories and data.** Contracting Parties are urged to establish the extent and quality of information which has been collected on wetlands within their territory and take steps to complete an inventory if this has not been done. Inventories should be undertaken using accepted models and standards as advocated by the Ramsar Convention (Resolution VII.20). The lack of an inventory should not, however, prevent designations where adequate information is already available for some sites.

34. Consistent with the developing scientific knowledge of the status and distribution of wetlands, their associated plants and animals, and their functions and values, national wetland inventories and/or lists of potential Ramsar sites should be subject to periodic review and updating (Ramsar Strategic Plan 1997-2002, Action 6.1.1).

35. **Territory of the Contracting Parties and transfrontier situations**. Wetland inventories should be certain to take into consideration all parts of the territory of the Contracting Party. In accordance with Article 5 of the Convention and the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19), special consideration should be given to identifying and designating transfrontier sites.

36. **Supranational/regional level guidance.** Contracting Parties should also be aware that in some instances they may require more detailed guidance at the supranational/ regional

level in establishing the relative importance of sites for possible designations. This may apply in the following situations:

i. where plant or animals species do not occur in large concentrations (such as migratory waterbirds in northern latitudes) within the country; or
ii. where collection of data is difficult (particularly in very large countries); or
iii. where there may be a high degree of spatial and temporal variability of rainfall – particularly in semi-arid or arid zones – resulting in dynamic use of complexes of temporary wetlands within and between years by waterbirds and other mobile species and where the patterns of such dynamic use are insufficiently known; or
iv. where, for certain types of wetland such as peatlands (Recommendation 7.1), coral reefs, karst and other subterranean hydrological systems, there may be limited national expertise as to the range and significance of international variation (additional guidance for the identification and designation of peatlands as Ramsar sites will be developed by the STRP in response to, and in parallel with, the *Global action plan for the wise use and management of peatlands*, Recommendation 7.1); or
v. where several biogeographic regions come together and the transition zones may have high levels of biological diversity.

37. **Consider all of the Ramsar Criteria and all species.** Contracting Parties are urged to consider all of the Criteria fully when developing a systematic approach. Article 2.2 of the Convention indicates that sites should be considered on the basis of their "*ecology, botany, zoology, limnology or hydrology*". Under the Ramsar Criteria (see Section V), this is further clarified in terms of wetland type and conservation of biological diversity.

38. Contracting Parties should also aim to use the criteria appropriately, meaning that although specific criteria have been developed for waterbirds (see Section V, Criteria 5 and 6) and for fish (see Section V, Criteria 7 and 8), these are not the only wetland taxa for which Ramsar sites can and should be listed. Waterbirds and fish are simply the ones for which specific guidance has been developed. Criteria 2, 3 and 4 provide latitude to identify sites for any other wetland species, but also for waterbirds and fish, where appropriate. There is also a risk that less obvious species and the microbiota may be overlooked in these considerations and care should be exercised to ensure all components of biological diversity are taken in consideration.

39. **Prioritising.** Having systematically applied the Criteria to develop a list of wetlands that qualify for designation, Contracting Parties are encouraged to identify priority candidate sites. Particular weight should be given to designating sites which include wetland types, or wetland species, that are either unique/endemic to the Contracting Party (found nowhere else in the world), or for which that country holds a significant proportion of the total global extent of a wetland type or population of a wetland species.

40. **Smaller sites should not be overlooked.** In developing a systematic approach to Ramsar site designation, Contracting Parties are encouraged to recognize that potential Ramsar sites are not necessarily the largest wetlands within the territory. Some wetland types either never were or are no longer found as large wetland systems, and these should not be overlooked. They may be especially important in maintaining habitat or ecological community-level biological diversity.

41. **Legal protected area status.** Contracting Parties should be aware that Ramsar site designation does not require that the wetland in question must enjoy any type of previously conferred protected areas status or must necessarily acquire this after designation. Likewise, wetlands being considered for designation need not be pristine areas which have not been subjected to impacts from human activities. In fact, Ramsar designation can be used to confer a special type of recognition on these areas by virtue of elevating them to the status of sites recognized as internationally important. In this way, Ramsar designation could represent the starting point for a process of recovery and rehabilitation of a particular site, provided the site meets the criteria for listing under the Convention when nominated.

42. While the existing protected area status of a site should not be a factor in determining priorities for listing, Contracting Parties are urged to be mindful of the need for consistency in approach when officially designating wetlands sites under international conventions and treaties as well as national policy or legal instruments. If a wetland site gains national protected area status because it provides critical habitat for an endemic wetland-dependent species, the Criterion indicates that it will qualify as a Ramsar site. Contracting Parties are therefore urged to review all of their current, proposed and future protected areas to ensure that consistency is applied.

43. **Flagship and keystone species.** The concepts of indicator, flagship and keystone species are important for Contracting Parties to consider as well. The presence of "indicator" species can be a useful measure of good wetland quality. Well known "flagship" species can also have great symbolic and awareness raising value for wetland conservation and wise use, whereas "keystone" species play vital ecological roles. Wetlands with significant populations of indicator, flagship and/or keystone species may merit special consideration as sites of international importance.

44. **Species presence in perspective.** When applying population figures to establish the relative importance of sites for designation, Contracting Parties should take care to put these within an appropriate context. It may be that in terms of relative importance for biological diversity conservation, a site providing habitat for a rare species is a higher priority for listing and subsequent management action than a site which has larger numbers of a more common species.

45. **Non-native species.** The introduction and spread of non-native species is of great concern due to the impact this can have on the biological diversity and natural functioning of wetland ecosystems (see Resolution VII.14 on invasive species and wetlands). It follows, therefore, that the presence of introduced or non-native species should not be used to support a case for designating a site as a Wetland of International Importance. In some circumstances native species can also be considered invasive to wetlands due to the disruption and imbalances they can introduce into the ecosystem. It is possible for introduced non-native species to be rare or endangered in their native habitats. Such situations need to be carefully assessed by the Contracting Party.

46. **Boundary definition of sites.** When designating sites, Contracting Parties are encouraged to take a management-oriented approach to determining boundaries, recognizing that these should allow management of the site to be undertaken at the appropriate scale for maintaining the ecological character of the wetland. Article 2.1 of the Convention indicates that Ramsar sites "*may incorporate riparian and coastal zones adjacent to the wetlands, and islands or*

bodies of marine water deeper than six metres at low tide lying within the wetlands". For very small and therefore potentially vulnerable sites, Contracting Parties are encouraged to include buffer zones around the wetland. These may also be a useful management tool for subterranean system wetlands as well as larger sites.

47. In determining the boundaries of sites identified as habitat for animal species, these should be established so as to provide adequately for all the ecological and conservation requirements of those populations. In particular, large animals, species at the top of food-chains, those with large home-ranges, or with feeding and resting areas that are widely separated, will generally require substantial areas to support viable populations. If it is not possible to designate a site extending to the entire range used or accommodating viable (self-sustaining) populations, then additional measures relating to both the species and its habitat should be adopted in the surrounding areas (or the buffer zone). These measures will complement the protection of the core habitat within the Ramsar site.

48. While some sites considered for designation will be identified at landscape scale, containing substantial elements of whole wetland ecosystems, others may be smaller. In selecting and delimiting such more restricted wetlands the following guidance may assist in determining their extent:

    i. as far as possible, sites should include complexes or mosaics of vegetation communities, not just single communities of importance. Note that wetlands with naturally nutrient poor (oligotrophic) conditions generally exhibit low diversity of species and habitats. In these wetlands, high diversity may be associated with low conservation quality (indicated by markedly altered conditions). Thus, diversity must always be considered within the context of the norms of the wetland type;

    ii. zonations of communities should be included as completely as possible in the site. Important are communities showing natural gradients (transitions), for instance from wet to dry, from salt to brackish, from brackish to fresh, from oligotrophic to eutrophic, from rivers to their associated banks, shingle bars and sediment systems, etc.;

    iii. natural succession of vegetation communities often proceeds rapidly in wetlands. To the greatest extent possible and where these exist, all phases of succession (for example, from open shallow water, to communities of emergent vegetation, to reedswamp, to marshland or peatland, to wet forest) should be included in designated sites. Where dynamic changes are occurring, it is important that the site is large enough so that pioneer stages can continue to develop within the Ramsar site;

    iv. continuity of a wetland with a terrestrial habitat of high conservation value will enhance its own conservation value.

49. The smaller the site, the more vulnerable it is likely to be to outside influences. In determining boundaries of Ramsar sites, particular attention should be given to ensuring that wherever possible the limits of the sites serve to protect them from potentially damaging activities, especially those likely to cause hydrological disturbance. Ideally, boundaries should include those areas of land necessary to provide and maintain the hydrological functions needed to conserve the international importance and integrity of the site. Alternatively, it is important that planning processes are operating to ensure that

potential negative impacts arising from land-use practices on adjoining land or within the drainage basin are suitably regulated and monitored to provide confidence that the ecological character of the Ramsar site will not be compromised.

50. **Site clusters.** Clusters of small sites, or individual small "satellite" sites associated with larger areas, should be considered for listing where these are:

    i. component parts of a hydrologically linked system (e.g., a complex of valley mires, or system of groundwater-fed wetlands along a spring line, or karst and subterranean wetland systems); and/or

    ii. linked in their use by a common population of animal (e.g., a group of alternative roost or feeding areas used by one population of waterbirds); and/or

    iii. formerly geographically continuous before being separated by human activity; and/or

    iv. otherwise ecologically interdependent (e.g., sites forming part of a distinct wetland district/landscape with a common developmental history and/or supporting discrete species populations); and/or

    v. found in arid or semi-arid zones, where complexes of dispersed wetlands (sometimes of a non-permanent nature) can both individually and collectively be of very great importance both for biological diversity and human populations (e.g., essential links in incompletely known chains).

51. Where a cluster of sites is designated, the Ramsar Information Sheet should state clearly the rationale for treating the component parts collectively as one listed site.

52. **Complementary international frameworks.** When considering Ramsar site designations Contracting Parties are urged, as specified in Objective 4.2 (see paragraph 20), to consider the opportunities this may also provide for contributing to other established and developing initiatives under related international and regional environment conventions and programmes. This applies in particular to the Convention on Biological Diversity and the Convention on Migratory Species and its Agreements, such as the African-Eurasian Waterbirds Agreement. Regionally, this may apply to cooperative initiatives such as the North American Waterfowl Management Plan, the Western Hemisphere Shorebird Reserve Network, the Asia-Pacific Migratory Waterbird Conservation Strategy 1996-2000, the Mediterranean Wetlands Initiative (MedWet), the South Pacific Regional Environment Programme, the Southern Africa Development Community (SADC), the Association of the South East Asian Nations (ASEAN), the European Union's Natura 2000 network, the Emerald Network of the Bern Convention on the Conservation of European Wildlife and Natural Habitats, the Pan-European Biological and Landscape Diversity Strategy, the Wetlands Programme for the High Andes, the Treaty on Amazon Cooperation, the Central American Commission on Environment and Development (CCAD), etc.

IV.1 Guidelines for identifying and designating karst and other subterranean hydrological systems as Wetlands of International Importance

53. The ***Values*** of karst wetlands are numerous. In accordance with Article 2.2 of the Ramsar Convention, "*wetlands should be selected for the List on account of their international significance in terms of biology, botany, zoology, limnology or hydrology"*. From this perspective the principal wetland conservation values of karst and other subterranean hydrological systems include:

    a) uniqueness of karst phenomena/functions and functioning;
    b) inter-dependency and fragility of karst systems and their hydrological and hydrogeological characteristics;
    c) uniqueness of these ecosystems and endemism of their species;
    d) importance for conserving particular taxa of fauna and flora.

54. In addition to their many natural values, karst systems also have important socio-economic values, which include (but are not limited to) the supply of drinking water, water for grazing animals or agriculture, tourism and recreation. Karst wetland systems may play an especially vital role in ensuring adequate water supplies for human communities in generally dry surface landscapes.

55. ***Threats*** can be generated within or outside of the karst area. In general terms, many "living" karst areas are wetlands, whether surface or subterranean. The subterranean systems are, in many cases, still well-preserved, but due to increasing development pressures they are becoming endangered. The pressures are both direct (visitors to caves, researchers) and indirect, including pollution of all kinds (particularly water pollution; dumping of solid waste, sewage; development of infrastructure, etc.), water abstraction, retention in reservoirs and other uses.

56. To avoid confusion in **terminology**, the formulations "karst and other subterranean hydrological systems" and "subterranean wetlands" should be used throughout. Regardless of genesis, these terms should be used to include all subterranean cavities and voids with water (including ice caves). Such sites would be eligible for inclusion in the Ramsar List whenever the site selection criteria are fulfilled. These terms should also clearly cover coastal, inland and human-made subterranean sites, following the broad approach of the Ramsar definition of "wetland" and thereby offering a high degree of flexibility for each Contracting Party.

57. The specialized technical terminology used to describe karst and other subterranean phenomena makes a glossary indispensable for non-experts. UNESCO's *Glossary and Multilingual Equivalents of Karst Terms* (UNESCO, 1972) can be used as a detailed source of reference, but a simplified glossary is proposed for Ramsar purposes and is provided in the Glossary (Annex B) under "Karst".

58. Information provided for the purposes of Ramsar site designation and management of subterranean wetlands should be according to:

    a) what is available (in many cases this may be limited, and subject to future research efforts); and

    b) what is appropriate for the scale being considered. For example, local and national management authorities should have access to the full range and detail of

information available, whilst a summary will normally suffice for international purposes, notably completion of the Information Sheet on Ramsar Wetlands.

59. Ramsar designation should be considered as part of a mosaic of national and international instruments. In this way, the most representative part(s) of larger karst/subterranean systems might be designated under the Ramsar Convention, with land-use planning controls, etc., applied to achieve "wise use" of the whole system and its catchment area.

60. Site survey and mapping may present special problems and should be done according to practical possibilities. For example, a two dimensional ground plan of subterranean features, projected against surface features, would suffice as a Ramsar site map. It is recognized that many Contracting Parties will not have the resources to generate three-dimensional representations of subterranean sites, and the lack of such resources should not be a barrier to designation.

61. Optimal boundaries for karst/subterranean Ramsar sites would cover whole catchments, but this is unlikely to be realistic in most cases. Site boundaries should, however, cover the areas which have the most significant direct or indirect impacts on the features of interest.

62. In applying the Ramsar Criteria for Identifying Wetlands of International Importance, special attention should be given to unique and representative hydrological, hydrogeological, biological and landscape values. In this regard intermittent karst and thermal springs can be of special interest.

63. The flexible approach of the Convention allows countries to choose the most appropriate boundaries for national or site-specific situations. In particular, designation of either or both single cave and complex systems (for example, with surface and subterranean wetlands) can be envisaged.

64. The Ramsar definition of wetlands (Article 1.1) should be read/understood to include surface and subterranean wetlands, although the Convention text does not explicitly refer to these systems.

65. Special consideration should be given to the cultural and socio-economic values of karst and other subterranean hydrological systems and to the fact that their "wise use" must be implemented at both national and local levels. A clear distinction is required between designation, management and monitoring of these wetlands.

V. Criteria and long-term targets for the designation of Wetlands of International Importance, with guidance for their application

66. In this Section of the Strategic Framework for the Ramsar List, the Criteria for designating sites are presented, along with the long-term target the Convention has for each. For each Criterion, guidelines are also provided to assist Contracting Parties in taking a systematic approach to identifying their priority sites for designation. These guidelines should be considered in conjunction with the more general guidelines given in Section IV. In addition, Appendix B provides a Glossary of the terms used in the Criteria, long-term targets and guidelines presented below.

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.

Long-term target for the Ramsar List:

67. To have included in the Ramsar List at least one suitable representative of each wetland type, according to the Ramsar classification system (Section IV), which is found within each biogeographic region.

Guidelines

68. In applying this Criterion systematically, Contracting Parties are encouraged to:

    i. determine biogeographic regions within their territory or at the supranational/ regional level;
    ii. within each biogeographic region, determine the range of wetland types present (using the Ramsar classification system for wetland type, Appendix A), noting in particular any rare or unique wetland types; and
    iii. for each wetland type within each biogeographic region, identify for designation under the Convention those sites which provide the best examples (see Glossary of terms, Appendix B).

69. Objective 1 and, in particular 1.2 (paragraph 10 above), indicates that another consideration under this Criterion is to give priority to those wetlands which play a substantial hydrological, biological or ecological role in the natural functioning of a major river basin or coastal system. In terms of hydrological functioning, the following is provided to assist Contracting Parties consider this aspect of determining priority sites under this Criterion. For guidance relevant to biological and ecological roles refer to Criterion 2 following.

70. **Hydrological importance**. As indicated by Article 2 of the Convention, wetlands can be selected for their hydrological importance which, *inter alia*, may include the following attributes. They may:

    i. play a major role in the natural control, amelioration or prevention of flooding;
    ii. be important for seasonal water retention for wetlands or other areas of conservation importance downstream;
    iii. be important for the recharge of aquifers;
    iv. form part of karst or underground hydrological or spring systems that supply major surface wetlands;
    v. be major natural floodplain systems;
    vi. have a major hydrological influence in the context of at least regional climate regulation or stability (e.g., certain areas of cloudforest or rainforest, wetlands or wetland complexes in semi-arid, arid or desert areas, tundra or peatland systems acting as sinks for carbon, etc.);
    vii. have a major role in maintaining high water quality standards.

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.

Long-term target for the Ramsar List:

71. To have included in the Ramsar List those wetlands which are believed to be of importance for the survival of vulnerable, endangered or critically endangered species or threatened ecological communities.

Guidelines

72. Ramsar sites have an important role in the conservation of globally threatened species and ecological communities. Notwithstanding the small numbers of individuals that may be involved, or poor quality of quantitative data or information that may sometimes be available, particular consideration should be given to listing wetlands that support globally threatened species at any stage of their lifecycle using Criterion 2 or 3.

73. General Objective 2.2 within this Strategic Framework urges Contracting Parties to seek to include in the Ramsar List wetlands that include threatened ecological communities or are critical to the survival of species identified as vulnerable, endangered or critically endangered under national endangered species legislation/programmes or within international frameworks such as the IUCN Red Lists or the Appendices of CITES and CMS.

74. When Contracting Parties are reviewing candidate sites for listing under this Criterion, greatest conservation value will be achieved through the selection of a network of sites providing habitat for rare, vulnerable, endangered, or critically endangered species. Ideally, the sites in the network will have the following characteristics. They:

    i. support a mobile population of a species at different stages of its life cycle; and/or
    ii. support a population of a species along a migratory pathway or flyway – noting that different species have different migratory strategies with different maximum distances needed between staging areas; and/or
    iii. are ecologically linked in other ways, such as through providing refuge areas to populations during adverse conditions; and/or
    iv. are adjacent to or in close proximity to other wetlands included in the Ramsar List, the conservation of which enhances the viability of threatened species' population by increasing the size of habitat that is protected; and/or
    v. hold a high proportion of the population of a dispersed sedentary species that occupies a restricted habitat type.

75. For identifying threatened ecological communities, greatest conservation value will be achieved through the selection of sites that have the following characteristics. They:

    i. include significant areas having certain communities, particularly where these are of high quality or particularly typical of the biogeographic region; and/or
    ii. are sites which have rare communities; and/or
    iii. include ecotones, seral stages, and communities which exemplify particular processes; and/or
    iv. have communities that can no longer develop under contemporary conditions (because of climate change or anthropogenic interference for example); and/or
    v. have communities at the contemporary stage of a long developmental history and which support a well-preserved paleoenvironmental archive; and/or
    vi. are sites which have communities that are functionally critical to the survival of other (perhaps rarer) comunities or particular species; and/or
    vii. contain communities which have been the subject of significant decline in extent or occurrence.

76. Note also the issues concerning habitat diversity and succession in paragraphs 46 to 49 above, "Boundary definition of sites".

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.

Long-term target for the Ramsar List:

77. To have included in the Ramsar List those wetlands which are believed to be of importance for maintaining the biological diversity within each biogeographic region.

Guidelines

78. When Contracting Parties are reviewing candidate sites for listing under this Criterion, greatest conservation value will be achieved through the selection of a suite of sites that have the following characteristics. They:

    i. are "hotspots" of biological diversity and are evidently species-rich even though the number of species present may not be accurately known; and/or
    ii. are centres of endemism or otherwise contain significant numbers of endemic species; and/or
    iii. contain the range of biological diversity (including habitat types) occurring in a region; and/or
    iv. contain a significant proportion of species adapted to special environmental conditions (such as temporary wetlands in semi-arid or arid areas); and/or
    v. support particular elements of biological diversity that are rare or particularly characteristic of the 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.

Long-term target for the Ramsar List:

79. To have included in the Ramsar List those wetlands which are the most important for providing habitat for plant or animal species during critical stages of their life cycle and/or when adverse conditions prevail.

Guidelines

80. Critical sites for mobile or migratory species are those which contain particularly high proportions of populations gathered in relatively small areas at particular stages of life cycles. This may be at particular times of the year or, in semi-arid or arid areas, during years with a particular rainfall pattern. For example, many waterbirds use relatively small areas as key staging points (to eat and rest) on their long-distance migrations between breeding and non-breeding areas. For Anatidae species, moulting sites are also critical. Sites in semi-arid or arid areas may hold very important concentrations of waterbirds and other mobile wetland species and be crucial to the survival of populations, yet may vary greatly in apparent importance from year-to-year as a consequence of considerable variability in rainfall patterns.

81. Non-migratory wetland species are unable to move away when climatic or other conditions become unfavourable and only some sites may feature the special ecological characteristics to sustain species' populations in the medium or long-term. Thus in dry periods, some crocodile and fish species retreat to deeper areas or pools within wetland complexes, as the extent of suitable aquatic habitat diminishes. These restricted areas are critical for the survival of animals at that site until rains come and increase the extent of wetland habitat once more. Sites (often with complex ecological, geomorphological and physical structures) which perform such functions for non-migratory species are especially important for the persistence of populations and should be considered as priority candidates for listing.

Specific criteria based on waterbirds

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

Long-term target for the Ramsar List:

82. To have included in the Ramsar List all wetlands which regularly support 20,000 or more waterbirds.

Guidelines

83. When Contracting Parties are reviewing candidate sites for listing under this Criterion, greatest conservation value will be achieved through the selection of a network of sites that

provide habitat for waterbird assemblages containing globally threatened species or subspecies. These are currently poorly represented in the Ramsar List (Green 1996). Refer also to paragraph 44 above, "Species presence in perspective".

84. Non-native waterbirds should not be included within the totals for a particular site (refer also to paragraph 45 above, "Non-native species").

85. This Criterion will apply to wetlands of varying size in different Contracting Parties. While it is impossible to give precise guidance on the size of an area in which these numbers may occur, wetlands identified as being of international importance under Criterion 5 should form an ecological unit, and may thus be made up of one big area or a group of smaller wetlands. Refer also to paragraphs 50 and 51 above, "Site clusters". Consideration may also be given to turnover of waterbirds at migration periods, so that a cumulative total is reached, if such data are available.

86. Refer also to paragraph 52 above, "Complementary international frameworks".

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.

Long-term target for the Ramsar List:

87. To have included in the Ramsar List all wetlands which regularly support 1% or more of a biogeographical population of waterbird species or subspecies.

Guidelines

88. When Contracting Parties are reviewing candidate sites for listing under this Criterion, greatest conservation value will be achieved through the selection of a suite of sites that hold populations of globally threatened species or subspecies. Refer also to paragraph 44 above, "Species presence in perspective", and paragraph 52 above, "Complementary international frameworks". Consideration may also be given to turnover of waterbirds at migration periods, so that a cumulative total is reached, if such data are available.

89. To ensure international comparability, where possible, Contracting Parties should use the international population estimates and 1% thresholds published and updated every three years by Wetlands International as the basis for evaluating sites for the List using this Criterion. As urged by Resolution VI.4, for the better application of this Criterion, Contracting Parties should not only supply data for the future update and revision of international waterbird population estimates, but also support the national implementation and development of Wetlands International's International Waterbird Census, which is the source of much of these data.

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.

Long-term target for the Ramsar List:

90. To have included in the Ramsar List those wetlands that support a significant proportion of indigenous fish subspecies, species or families and populations.

Guidelines

91. Fishes are the most abundant vertebrates associated with wetlands. Worldwide, over 18,000 species of fishes are resident for all or part of their life cycles in wetlands.

92. Criterion 7 indicates that a wetland can be designated as internationally important if it has a high diversity of fishes and shellfishes. It emphasizes the different forms that diversity might take, including the number of taxa, different life-history stages, species interactions, and the complexity of interactions between the above taxa and the external environment. Species counts alone are thus not sufficient to assess the importance of a particular wetland. In addition, the different ecological roles that species may play at different stages in their life cycles needs to be considered.

93. Implicit in this understanding of biological diversity is the importance of high levels of endemism and of biodisparity. Many wetlands are characterized by the highly endemic nature of their fish fauna.

94. Some measure of the level of endemism should be used to distinguish sites of international importance. If at least 10% of fish are endemic to a wetland, or to wetlands in a natural grouping, that site should be recognized as internationally important, but the absence of endemic fishes from a site should not disqualify it if it has other qualifying characteristics. In some wetlands, such as the African Great Lakes, Lake Baikal in the Russian Federation, Lake Titicaca in Bolivia/Peru, sinkholes and cave lakes in arid regions, and lakes on islands, endemism levels as high as 90-100% may be reached, but 10% is a practical figure for worldwide application. In areas with no endemic fish species, the endemism of genetically-distinct infraspecific categories, such as geographical races, should be used.

95. Over 734 species of fish are threatened with extinction worldwide, and at least 92 are known to have become extinct over the past 400 years (Baillie & Groombridge 1996). The occurrence of rare or threatened fish is catered for in Criterion 2.

96. An important component of biological diversity is biodisparity, i.e., the range of morphologies and reproductive styles in a community. The biodisparity of a wetland community will be determined by the diversity and predictability of its habitats in time and space, i.e., the more heterogeneous and unpredictable the habitats, the greater the biodisparity of the fish fauna. For example, Lake Malawi, a stable, ancient lake, has over 600 fish species of which 92% are maternal mouthbrooding cichlids, but only a few fish families. In contrast, the Okavango Swamp of Botswana, a palustrine floodplain that fluctuates between wet and dry phases, has only 60 fish species but a wider variety of morphologies and reproductive styles, and many fish families, and therefore has a greater

biodisparity (Bruton & Merron 1990). Measures of both biological diversity and biodisparity should be used to assess the international importance of a wetland.

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.

Long-term target for the Ramsar List:

97. To have included in the Ramsar List those wetlands which provide important food sources for fishes, or are spawning grounds, nursery areas and/or on their migration path.

Guidelines

98. Many fishes (including shellfishes) have complex life histories, with spawning, nursery and feeding grounds widely separated and long migrations necessary between them. It is important to conserve all those areas that are essential for the completion of a fish's life cycle if the fish species or stock is to be maintained. The productive, shallow habitats offered by coastal wetlands (including coastal lagoons, estuaries, salt marshes, inshore rocky reefs, and sandy slopes) are extensively used as feeding and spawning grounds and nurseries by fishes with openwater adult stages. These wetlands therefore support essential ecological processes for fish stocks, even if they do not necessarily harbour large adult fish populations themselves.

99. Furthermore, many fishes in rivers, swamps or lakes spawn in one part of the ecosystem but spend their adult lives in other inland waters or in the sea. It is common for fishes in lakes to migrate up rivers to spawn, and for fishes in rivers to migrate downstream to a lake or estuary, or beyond the estuary to the sea, to spawn. Many swamp fishes migrate from deeper, more permanent waters to shallow, temporarily inundated areas for spawning. Wetlands, even apparently insignificant ones in one part of a river system, may therefore be vital for the proper functioning of extensive river reaches up- or downstream of the wetland.

100. This is for guidance only and does not interfere with the rights of Contracting Parties to regulate fisheries within specific wetlands and/or elsewhere.

Appendix A.

The Ramsar Convention definition of "wetland" and classification system for wetland type

Definition

Under the Convention on Wetlands (Ramsar, Iran, 1971) "wetlands" are defined by Articles 1.1 and 2.1 as shown below:

> **Article 1.1:**
> *"For the purpose of this Convention wetlands are 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.*"
>
> **Article 2.1: provides that wetlands:**
> "*may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands*".

Ramsar Classification System for Wetland Type

The codes are based upon the Ramsar **Classification System for Wetland Type** as approved by Recommendation 4.7 and amended by Resolution VI.5 of the Conference of the Contracting Parties. The categories listed herein are intended to provide only a very broad framework to aid rapid identification of the main wetland habitats represented at each site.

Marine/Coastal Wetlands

A -- **Permanent shallow marine waters** in most cases less than six metres deep at low tide; includes sea bays and straits.
B -- **Marine subtidal aquatic beds**; includes kelp beds, sea-grass beds, tropical marine meadows.
C -- **Coral reefs**.
D -- **Rocky marine shores**; includes rocky offshore islands, sea cliffs.
E -- **Sand, shingle** or **pebble shores;** includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.
F -- **Estuarine waters**; permanent water of estuaries and estuarine systems of deltas.
G -- **Intertidal mud**, **sand** or **salt flats**.
H -- **Intertidal marshes**; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.
I -- **Intertidal forested wetlands**; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.
J -- **Coastal brackish/saline lagoons**; brackish to saline lagoons with at least one relatively narrow connection to the sea.
K -- **Coastal freshwater lagoons**; includes freshwater delta lagoons.
Zk(a) – **Karst and other subterranean hydrological systems**, marine/coastal

Inland Wetlands

L -- **Permanent inland deltas**.
M -- **Permanent rivers/streams/creeks**; includes waterfalls.
N -- **Seasonal/intermittent/irregular rivers/streams/creeks**.
O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
P -- **Seasonal/intermittent freshwater lakes** (over 8 ha); includes floodplain lakes.
Q -- **Permanent saline/brackish/alkaline lakes**.
R -- **Seasonal/intermittent saline/brackish/alkaline lakes and flats**.
Sp -- **Permanent saline/brackish/alkaline marshes/pools**.
Ss -- **Seasonal/intermittent saline/brackish/alkaline marshes/pools**.
Tp -- **Permanent freshwater marshes/pools**; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season.
Ts -- **Seasonal/intermittent freshwater marshes/pools** on inorganic soils; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.
U -- **Non-forested peatlands**; includes shrub or open bogs, swamps, fens.
Va -- **Alpine wetlands**; includes alpine meadows, temporary waters from snowmelt.
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.
Xf -- **Freshwater, tree-dominated wetlands**; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils.
Xp -- **Forested peatlands**; peatswamp forests.
Y -- **Freshwater springs; oases**.
Zg -- **Geothermal wetlands**
Zk(b) – **Karst and other subterranean hydrological systems**, inland

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.

Human-made wetlands

1 -- **Aquaculture** (e.g., fish/shrimp) **ponds**
2 -- **Ponds**; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).
3 -- **Irrigated land**; includes irrigation channels and rice fields.
4 -- **Seasonally flooded agricultural land** (including intensively managed or grazed wet meadow or pasture).
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.**
Zk(c) – **Karst and other subterranean hydrological systems**, human-made

Appendix B.

Glossary of terms used in the Strategic Framework

adverse conditions (Criterion 4) - ecological conditions unusually hostile to the survival of plant or animal species, such as occur during severe weather like prolonged drought, flooding, cold, etc.

appropriate (Criterion 1) - when applied to the term "biogeographic region" as here, this means the regionalisation which is determined by the Contracting Party to provide the most scientifically rigorous approach possible at the time.

biodisparity (Guidelines for Criteria 7 & 8) - the range of morphologies and reproductive styles in a community. The biodisparity of a wetland community is determined by the diversity and predictability of its habitats in time and space.

biogeographical population - several types of 'populations' are recognized:

i. the entire population of a monotypic species;
ii. the entire population of a recognized subspecies;
iii. a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;
iv. that 'population' of birds from one hemisphere which spend the non-breeding season in a relatively discrete portion of another hemisphere or region. In many cases, these 'populations' may mix extensively with other populations on the breeding grounds, or mix with sedentary populations of the same species during the migration seasons and/or on the non-breeding grounds;
v. a regional group of sedentary, nomadic or dispersive birds with an apparently rather continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or post-breeding dispersal.

Guidance on waterbird biogeographical populations (and, where data is available, suggested 1% thresholds for each population) is provided by Wetlands International, most recently in Rose & Scott (1997), with more detail for *Anatidae* populations in Africa and western Eurasia given in Scott & Rose (1996).

biogeographic region (Criteria 1 & 3) - a scientifically rigorous determination of regions as established using biological and physical parameters such as climate, soil type, vegetation cover, etc. Note that for non-island Contracting Parties, in many cases biogeographic regions will be transboundary in nature and will require collaboration between countries to establish representative, unique, etc., wetland types. In some cases, the term bioregion is used synonymously with biogeographic region. In some circumstances, the nature of biogeographic regionalization may differ between wetland types according to the nature of the parameters determining natural variation.

biological diversity (Criteria 3 & 7) – the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species (genetic diversity), between species (species diversity), of ecosystems (ecosystem diversity), and of ecological processes. (This

definition is largely based on the one contained in Article 2 of the Convention on Biological Diversity.)

critically endangered (Criterion 2) - as used by the Species Survival Commission of IUCN. A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined for animals by any of the criteria (A-E) of Annex 3 of the *1996 IUCN Red List of Threatened Animals* (Baillie & Groombridge 1996), or for plants by any of the criteria (A-E) of Appendix 1 of the *1997 IUCN Red List of Threatened Plants* (Walter & Gillett 1998). See also 'globally threatened species' below.

critical stage (Criterion 4) - meaning stage of the life cycle of wetland-dependent species. Critical stages being those activities (breeding, migration stopovers *etc.*) which if interrupted or prevented from occurring may threaten long-term conservation of the species. For some species (Anatidae for example), areas where moulting occurs are vitally important.

ecological communities (Criterion 2) - any naturally occurring group of species inhabiting a common environment, interacting with each other especially through food relationships and relatively independent of other groups. Ecological communities may be of varying sizes, and larger ones may contain smaller ones.

endangered (Criterion 2) - as used by the Species Survival Commission of IUCN. A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined for animals by any of the criteria (A-E) of Annex 3 of the *1996 IUCN Red List of Threatened Animals* (Baillie & Groombridge 1996), or for plants by any of the criteria (A-E) of Appendix 1 of the *1997 IUCN Red List of Threatened Plants* (Walter & Gillett 1998). See also 'globally threatened species' below.

endemic species (Guidelines for Criterion 7) - a species that is unique to one biogeographical region, i.e., it is found nowhere else in the world. A group of fishes may be indigenous to a subcontinent with some species endemic to a part of that subcontinent.

family (Criterion 7) - an assemblage of genera and species that have a common phylogenetic origin, e.g., pilchards, sardines and herrings in the family *Clupeidae*

fish (Criterion 7) - any finfish, including jawless fishes (hagfishes and lampreys), cartilaginous fishes (sharks, rays, skates and their allies, *Chondrichthyes*) and bony fishes (*Osteichthyes*) as well as certain shellfish or other aquatic invertebrates (see below).

fishes (Criterion 8) - "fishes" is used as the plural of "fish" when more than one species is involved.

Fish orders that typically inhabit wetlands (as defined by the Ramsar Convention) and which are indicative of wetland benefits, values, productivity or biological diversity, include:

i) **Jawless fishes - *Agnatha***
- hagfishes (*Myxiniformes*)
- lampreys (*Petromyzontiformes*)

ii) **Cartilaginous fishes - *Chondrichthyes***
- dogfishes, sharks and allies (*Squaliformes*)

- skates (*Rajiformes*)
- stingrays and allies (*Myliobatiformes*)

iii) **Bony fishes - *Osteichthyes***

- Australian lungfish (*Ceratodontiformes*)
- South American and African lungfishes (*Lepidosireniformes*)
- bichirs (*Polypteriformes*)
- sturgeons and allies (*Acipenseriforme*s)
- gars (*Lepisosteiformes*)
- bowfins (*Amiiformes*)
- bonytongues, elephant fishes and allies (*Osteoglossiformes*)
- tarpons, bonefishes and allies (*Elopiformes*)
- eels (*Anguilliformes*)
- pilchards, sardines and herrings (*Clupeiformes*)
- milkfishes (*Gonorhynchiformes*)
- carps, minnows and allies (*Cypriniformes*)
- characins and allies (*Characiformes*)
- catfishes and knifefishes (*Siluriformes*)
- pikes, smelts, salmons and allies (*Salmoniforme*s)
- mullets (*Mugiliformes*)
- silversides (*Atheriniformes*)
- halfbeaks (*Beloniformes*)
- killifishes and allies (*Cyprinodontiformes*)
- sticklebacks and allies (*Gasterosteiformes*)
- pipefishes and allies (*Syngnathiforme*s)
- cichlids, perches and allies (*Perciformes*)
- flatfishes (*Pleuronectiforme*s)

iv) **Several groups of shellfishes:**

- shrimps, lobsters, freshwater crayfishes, prawns and crabs (Crustacea)
- mussels, oysters, pencil baits, razor shells, limpets, winkles, whelks, scallops, cockles, clams,
- abalone, octopus, squid and cuttlefish (Mollusca)

v) **Certain other aquatic invertebrates:**

- sponges (*Porifera*)
- hard corals (*Cnidaria*)
- lugworms and ragworms (*Annelida*)
- sea urchins and sea cucumbers (*Echinodermata*)
- sea squirts (*Ascidiacea*)

fish stock (Criterion 8) - the potentially exploitable component of a fish population.

flyway (Guideline for Criterion 2) - the concept developed to describe areas of the world used by migratory waterbirds and defined as the migration routes(s) and areas used by waterbird populations in moving between their breeding and wintering grounds. Each individual species

and population migrates in a different way and uses a different suite of breeding, migration staging and wintering sites. Hence a single flyway is composed of many overlapping migration systems of individual waterbird populations and species, each of which has different habitat preferences and migration strategies. From knowledge of these various migration systems it is possible to group the migration routes used by waterbirds into broad flyways, each of which is used by many species, often in a similar way, during their annual migrations. Recent research into the migrations of many wader or shorebird species, for example, indicates that the migrations of waders can broadly be grouped into eight flyways: the East Atlantic Flyway, the Mediterranean/Black Sea Flyway, the West Asia/Africa flyway, the Central Asia/Indian sub-continent Flyway, the East Asia/Australasia Flyway, and three flyways in the Americas and the Neotropics.

There are no clear separations between flyways, and their use is not intended to imply major biological significance; rather it is a valuable concept for permitting the biology and conservation of waterbirds, as with other migratory species, to be considered in broad geographical units into which the migrations of species and populations can be more or less readily grouped.

globally threatened species (Criteria 2, 5 & 6) - species or subspecies which are listed by IUCN Species Survival Commission's Specialist Groups or Red Data Books as either Critically Endangered, Endangered or Vulnerable. Note that, especially for invertebrate taxa, IUCN's Red Data listings may be both incomplete and dynamic, reflecting poor knowledge of the global status of many taxa. Interpretation of the terms "vulnerable', 'endangered' or 'critically endangered' species should thus always be undertaken at a national level in the light of the best available scientific knowledge of the status of the relevant taxa.

importance (long-term target for Criterion 2) - sites, the protection of which will enhance the local and thus global long-term viability of species or ecological communities.

indigenous species (Criterion 7) - a species that originates and occurs naturally in a particular country.

introduced (non-native) species - a species that does not originate or occur naturally in a particular country.

karst (section IV.1) - a landscape created on soluble rock with efficient underground drainage. Karst is characterised by caves, dolines, a lack of surface drainage and is mainly, but not exclusively, formed on limestone. The name derives from Kras - the Classical Karst from Slovenia. In this original, temperate, karst the dominant landforms are dolines, but contrasting landscapes are the pinnacle, cone, and tower karsts of the tropics, and the fluviokarst and glaciokarst of colder climates. The term "kras" originally denoted bare, stony ground in the Slovene language.

The following subsection of the Glossary is related to Karst.

Allogenic drainage: karst drainage that is derived from surface run-off that originates on adjacent impermeable, rocks. Also known as allochthonous drainage.
Aquiclude: relatively impermeable rock acting as the boundary to an aquifer.
Aquifer: a water-bearing horizon, sufficiently permeable to transmit groundwater and yield such water to wells and springs.

Aquitard: a bed of rock that retards, but does not totally inhibit, the movement of water into or out of an aquifer.

Artesian flow: flow through a confined aquifer where the entire aquifer is saturated and the flow is under hydrostatic pressure.

Autogenic drainage: karst drainage that is derived entirely by absorption of meteoric water into the karst rock surface. Also known as autochthonous drainage.

Backflooding: flooding due to backup of excess flow behind a constriction in a major conduit.

Bedding plane: a depositional lamination in sedimentary rocks.

Bedding plane cave: cave passages guided by bedding.

Blind valley: a valley that terminates where its stream sinks, or once sank, underground.

Breakdown: Synonym for the collapse of caves, or, in American usage, for the debris produced by collapse.

Calcium carbonate: naturally occurring compound with the chemical formula $CaCO_3$, the major component of carbonate rocks including limestone and marble.

Carbonate rock: a rock consisting of one or more carbonate minerals.

Cave: A natural hole in the ground, large enough for human entry. This does not include hydrologically very significant, conduits or fissures. A cave may be a single, short length of accessible passage, or an extensive and complex network of tunnels as long as the hundreds of kilometers in the Flint Mammoth Cave System. Most caves are formed by dissolution in limestone but sandstone caves, lava caves, glacier caves and tectonic caves also occur. In some countries a cave is regarded as being a horizontal opening, as opposed to a pothole, or jama, which is a vertical opening, or natural vertical shaft.

Cave lake: any underground lake, it may be the entrance to a sump, in vadose caves formed by ponding behind banks of sediment or gour barriers.

Chamber: an enlargement in a cave passage or system. The largest chamber currently known, Sarawak Chamber in Sarawak, is over 700m long, up to 400m wide and 70m high.

Classical Karst: the region called Kras in Slovenia, which gave its name to the karst landscape.

Conduit: dissolutional voids, including enlarged fissures and tubular tunnels; in some usage the term is restricted to voids that are water-filled.

Conduit flow: underground water flow within conduits.

Corrosion: the erosion of rock by chemical activity that leads to dissolution.

Doline: a circular closed depression, saucershaped, conical or in some cases cylindrical. Dolines may form by dissolution, collapse, or a combination of these. They are ubiquitous features of limestone karst, but can form in or above any soluble rock; subsidence dolines are developed in insoluble sediment leached or collapsed into an underlying cavernous limestone. The largest dolines in Slovenia, Smrekova draga for instance, are more than 1 km long and over 100 m deep.

Dry valley: valley without a permanent surface stream. It became dry when underground drains formed or were re-opened.

Entrenchment: erosion by a freely flowing stream to form a canyon.

Estavelle: opening that acts as either a sinkhole or a spring, depending upon groundwater level.

Floodwater zone: the zone through which the level of the water table fluctuates, also epiphreatic zone.

Freshwater lens: fresh groundwater found beneath permeable limestone islands or peninsular land masses. It is limited by a water table above and below by a mixing zone between fresh and saline groundwater along the halocline.

Gour: pool formed by calcite deposition. Gours can grow into large dams many metres high and wide. Travertine, gours form in the open air.

Groundwater: a subsurface water that lies below the water table in the saturated or phreatic zone.

Gypsum: mineral or rock composed of the hydrated calcium sulphate, $CaSO_4 .2H_20$.

Gypsum cave: gypsum is very soluble and vadose and phreatic caves can form in it. Largest caves are in the Podolie region of the Ukraine, where the Optimisticeskaja only has around 180 km of passage.

Halocline: the interface between fresh groundwater and saline groundwater.

Hydraulic gradient: the slope of the water table in an aquifer.

Ice cave: a cave in rock filled with permanent ice.

Input point: the start of underground drainage route or aquifer.

Limestone: sedimentary rock containing at least 50% calcium carbonate by weight.

Meteoric water: water that originates from any form of atmospheric precipitation.

Moonmilk: fine-grained mineral deposit of calcite, aragonite, formed largely by bacterial deposition.

Output point: a point where water exits from an underground drainage route or aquifer.

Passage: any negotiable part of a cave system, horizontal rather than vertical or sub-vertical sections. Cave passages vary in size and shape, the largest known is Deer Cave, which is up to 170m wide and 120m high, in the Mulu karst of Sarawak.

Percolation water: water moving slowly through the fissure network of a limestone. Usually percolation water enters the limestone through a soil cover. Percolation water accounts for most of the storage in a limestone aquifer, responds slowly to flooding in comparison to sinkhole water.

Permeability: the ability of a rock to transmit water. Permeability may be primary, due to the effects of interlinked porosity or open tectonic fractures, or secondary, due to the dissolutional enlargement of fissures developing conduit permeability.

Phreas: the zone of saturated rock below the water table, within which all conduits are water filled.

Phreatic cave: cave developed below the water table, where all voids are water filled within the phreas. Phreatic caves may include loops deep below the water table, karstic maturity encourages shallow phreatic development just below the water table.

Piezometric surface: the level to which a column of water ascends in an observation well (piezometric tube).

Pit: shaft or pothole from the surface or inside a cave, vertical segment of a gallery.

Pocket valley: a valley that begins abruptly and has no headwaters, having formed from and below the site of a karst spring.

Polje: large flat-floored closed karst depression, with commonly alluviated floor. Streams or springs drain into poljes and outflow is underground through ponors. Commonly the ponors cannot transmit flood flows, so many poljes turn into wet-season lakes. The form of some poljes is related to the geological structure, but others are purely the products of lateral dissolution and planation.

Ponor: also a sinkhole or swallowhole.

Pothole: a single shaft, or an entire cave system that is dominantly vertical.

Pseudokarst: a landscape containing karst-like features but not formed by bedrock dissolution.

Relict cave: inactive cave segment, left when the water is diverted elsewhere.

Salt karst: karst landforms developed upon halite or halite-rich rock.

Shaft: natural vertical, or steeply inclined, section of a cave passage, deepest known shaft is the entrance shaft on the Kanin plateau, Slovenia; it is 643 m deep, with no ledges.

Sink: a point where a stream or river disappears underground, through a choke, or may flow into an open horizontal cave or vertical shaft. The character of sink water, flowing directly and rapidly into an open cave, distinguishes it from percolation water. Sink water is also referred to as sub-surface runoff.

Speleology: Scientific study of caves, including aspects of sciences, such as geomorphology, geology, hydrology, chemistry and biology, and also the many techniques of cave exploration.

Speleothem: general term for all cave mineral deposits, embracing all stalactites, flowstone, flowers etc.

Spring: point where underground water emerges on to the surface, not exclusive to limestone, but generally larger in cavernous rocks. Among the world's largest is the Dumanli spring, Turkey, with a mean flow of over 50 cubic metres per second.

Subcutaneous zone: a zone of generally highly weathered rock that lies below the soil but above the main, relatively unweathered, rock mass of a karst aquifer.

Sump: a section of flooded passage, also siphon.

Travertine: calcareous mineral deposited by flowing water, where plants and algae cause the precipitation by extracting carbon dioxide from the water and give travertine its porous structure. Capillary forces, loss of head and aeration also influence travertine deposition.

Troglobite: a creature that lives permanently underground beyond the daylight zone of a cave. Many troglobitic species are adapted in some way to living in a totally dark environment.

Troglophile: an animal that enters beyond the daylight zone of a cave intentionally and habitually and generally spends part of its life in the underground environment.

Trogloxene: a creature that will enter a cave on occasions but does not use the cave either for temporary or permanent habitation.

Vadose cave: a cave that underwent most of its development above the water table within the vadose zone, where drainage is free-flowing under gravity. The gravitational control of vadose flow means that all vadose cave passages drain downslope, they exist in the upper part of a karst aquifer, and they ultimately drain into the phreatic zone or out to the surface.

Vadose zone: the zone of rock above the water table, with free downward drainage, only partially water-filled. Also known as unsaturated zone, and comprises the soil, a subcutaneous or epikarstic zone, and a free-draining percolation zone.

Vauclusian rising: a type of rising or spring where direct drainage from the phreas flows up a flooded cave passage under pressure to emerge in daylight. Such risings are named after the Fontaine de Vaucluse in southern France with a mean flow of 26 cubic metres per second. It is vertical and 243m deep. Discharge fluctuates seasonally.

Water table: the top surface of a body of groundwater that fills the pore spaces within a rock mass. Above it lies the freely draining vadose zone, and below it lies the permanently saturated phreas. Individual cave conduits may be above or below the water table, and therefore either vadose or phreatic, and the water table cannot normally be related to them. The water table slope (hydraulic gradient) is low in limestone due to the high permeability, and the level is controlled by outlet springs or local geological features. High flows create steeper hydraulic gradients and hence rises in the water level away from the spring. In France's Grotte de la Luire, the water level in the cave (and therefore the local water table) fluctuates by 450m.

Water tracing: underground drainage links through unexplored caves confirmed by labelling input water and identifying it at points downstream. The common labelling techniques involve the use of fluorescent dyes (uranine, fluorescein, rhodamine, leucophor, pyranine etc.), lycopodium spores, or chemicals such as common salt. The longest successful water trace was in Turkey over a distance of 130 km.

life-history stage (Criterion 7) - a stage in the development of a finfish or shellfish, e.g., egg, embryo, larva, leptocephalus, zoea, zooplankton stage, juvenile, adult, or post-adult.

migration path (Criterion 8) - the route along which fishes, such as salmon and eels, swim when moving to or from a spawning or feeding ground or nursery. Migration paths often cross international boundaries or boundaries between management zones within a country.

near natural (Criterion 1) - when used in Criterion 1 this means those wetlands which continue to function in what is considered an almost natural way. This clarification is provided in the Criteria to allow for the listing of sites which are not pristine, yet retain values making them internationally important.

nursery (Criterion 8) - that part of a wetland used by fishes for providing shelter, oxygen and food for the early developmental stages of their young. In some fishes, e.g., nest-guarding tilapias, the parent/s remain at the nursery to protect the young whereas in others the young are not protected by the parent/s except by virtue of the shelter provided by the habitat in which they are deposited, e.g., non-guarding catfishes. The ability of wetlands to act as nurseries depends on the extent to which their natural cycles of inundation, tidal exchange, water temperature fluctuation and/or nutrient pulses are retained. Welcomme (1979) showed that 92% of the variation in catch from a wetland-recruited fishery could be explained by the recent flood history of the wetland.

plants (Criteria 3 & 4) – meaning vascular plants, bryophytes, algae and fungi (including lichens).

population (Criterion 6) – in this case meaning the relevant biogeographic population.

population (Criterion 7) - in this case meaning a group of fishes comprising members of the same species.

populations (Criterion 3) - in this case meaning the population of a species within the specified biogeographical region.

provides refuge (Criterion 4) - refer also to definition for "critical stage" which is related. Critical stages are defined as being those activities (breeding, non-breeding, migration stopovers, etc.) which if interrupted or prevented from occurring may threaten long-term conservation of the species. Refuges should be interpreted to mean those locations where such critical stages gain some degree of protection during adverse condition such as drought.

regularly (Criteria 5 & 6) - as in supports regularly - a wetland regularly supports a population of a given size if:

i) the requisite number of birds is known to have occurred in two thirds of the seasons for which adequate data are available, the total number of seasons being not less than three; or

ii) the mean of the maxima of those seasons in which the site is internationally important, taken over at least five years, amounts to the required level (means based on three or four years may be quoted in provisional assessments only).

In establishing long-term 'use' of a site by birds, natural variability in population levels should be considered especially in relation to the ecological needs of the populations present. Thus in some situations (e.g., sites of importance as drought or cold weather refuges or temporary wetlands in semi-arid or arid areas – which may be quite variable in extent between years), the simple arithmetical average number of birds using a site over several years may not adequately reflect the true ecological importance of the site. In these instances, a site may be of crucial importance at certain times ('ecological bottlenecks'), but hold lesser numbers at other times. In such situations, there is a need for interpretation of data from an appropriate time period in order to ensure that the importance of sites is accurately assessed.

In some instances, however, for species occurring in very remote areas or which are particularly rare, or where there are particular constraints on national capacity to undertake surveys, areas may be considered suitable on the basis of fewer counts. For some countries or sites where there is very little information, single counts can help establish the relative importance of the site for a species.

The International Waterbird Census data collated by Wetlands International is the key reference source.

representative (Criterion 1) - a wetland that is a typical example of a particular wetland type found in a region. Wetland types are defined in Appendix A.

significant proportion (Criterion 7) - for the fish Criteria - in polar biogeographical regions a "significant proportion" may be 3-8 subspecies, species, families, life-history stages or species interactions; in temperate zones 15-20 subspecies, species, families, etc.; and in tropical areas 40 or more subspecies, species, families, etc., but these figures will vary among regions. A "significant proportion" of species includes all species and is not limited to those of economic interest. Some wetlands with a "significant proportion" of species may be marginal habitats for fish and may only contain a few fish species, even in tropical areas, e.g. the backwaters of mangrove swamps, cave lakes, the highly saline marginal pools of the Dead Sea. The potential of a degraded wetland to support a "significant proportion" of species if it were to be restored also needs to be taken into account. In areas where fish diversity is naturally low, e.g., at high latitudes, in recently glaciated areas or in marginal fish habitats, genetically distinct infraspecific groups of fishes could also be counted.

spawning ground (Criterion 8) - that part of a wetland used by fishes for courting, mating, gamete release, gamete fertilization and/or the release of the fertilized eggs, e.g. herring, shad, flounder, cockles, and many fishes in freshwater wetlands. The spawning ground may be part of a river course, a stream bed, inshore or deep water zone of a lake, floodplain, mangrove, saltmarsh, reed bed, estuary or the shallow edge of the sea. The freshwater outflow from a river may provide suitable spawning conditions on the adjacent marine coast.

species (Criteria 2 & 4) - naturally occurring populations that interbreed, or are capable of interbreeding, in the wild. Under these (and other) Criteria, subspecies are also included.

species interaction (Criterion 7) - exchanges of information or energy between species that are of particular interest or significance, e.g., symbiosis, commensalism, mutual resource defence, communal brooding, cuckoo behaviour, advanced parental care, social hunting, unusual predator-prey relationships, parasitism and hyperparasitism. Species interactions occur in all ecosystems but are particularly developed in species-rich climax communities, such as coral reefs and ancient lakes, where they are an important component of biological diversity.

supports (Criteria 4, 5, 6 & 7) - provides habitat for; areas which can be shown to be important to a species or an assemblage of species for any period of time are said to support that species. Occupation of an area need not be continuous, but may be dependent on natural phenomena such as flooding or (local) drought conditions.

survival (long-term target for Criterion 2) - sites which contribute most to the survival of species or ecological communities locally and as a whole are those which enable its geographic range to be maintained on a long-term basis. The long-term persistence of species is most likely to occur where:

i) population dynamics data on the species concerned indicate that it is self-sustaining on a long-term basis as a viable component of its natural habitats, and
ii) the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
iii) there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

threatened ecological community - an ecological community which is likely to become extinct in nature if the circumstances and factors threatening its extent, survival or evolutionary development continue to operate.

Guidelines for a threatened ecological community are that the community is subject to current and continuing threats likely to lead to extinction as demonstrated by one or more of the following phenomena:

i) Marked decrease in geographic distribution. A marked decrease in distribution is considered to be a measurable change whereby the distribution of the ecological community has contracted to less than 10% of its former range, or the total area of the ecological community is less than 10% of its former area, or where less than 10% of the area of the ecological community is in patches of a size sufficiently large for them to be likely to persist for more than 25 years. (The figure of 10% is indicative and for some communities, especially those which originally covered a relatively large area, it may be appropriate to use a different figure).

ii) Marked alteration of community structure. Community structure includes the identity and number of component species that make up an ecological community, the relative and absolute abundance of those species and the number, type and strength of biotic and abiotic processes that operate within the community. A marked alteration of community structure is a measurable change whereby component species abundance, abiotic interactions, or biotic interactions are altered to the extent that rehabilitation of the ecological community is unlikely to occur within 25 years.

iii) Loss or decline of native species that are believed to play a major role in the community. This guideline refers to species that are important structural components of a community or that are important in the processes that sustain or play a major role in the community, e.g., seagrass, termite nests, kelp, dominant tree species.

iv) Restricted geographic distribution (determined at national level) such that the community could be lost rapidly by the action of a threatening process.

v) Community processes being altered to the extent that a marked alteration of community structure will occur. Community processes can be abiotic (e.g., fire, flooding, altered hydrology, salinity, nutrient change) or biotic (e.g., pollinators, seed dispersers, soil disturbance by vertebrates which affect plant germination). This guideline recognizes that ecological processes are important to maintain an ecological community, e.g., fire regimes, flooding, cyclone damage; and that disruption to those processes can lead to the decline of the ecological community.

turnover (Criteria 5 & 6) – the throughput of waterbirds using a wetland during migration periods such that the cumulative total number using the site is greater than the peak count at any one time.

unique (Criterion 1) - the only one of its type within a specified biogeographic region. Wetland types are defined in Appendix A.

vulnerable (Criterion 2) - as used by the Species Survival Commission of IUCN. A taxon is Vulnerable when it is not either Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future, as defined for animals by any of the criteria (A-D) of Annex 3 of the *1996 IUCN Red List of Threatened Animals* (Baillie & Groombridge 1996), or for plants by any of the criteria (A-E) of Appendix 1 of the *1997 IUCN Red List of Threatened Plants* (Walter & Gillett 1998). See also 'globally threatened species' above.

waterbirds (Criteria 5 & 6) - The Convention functionally defines waterfowl (a term which, for the purposes of these Criteria and Guidelines, is considered to be synonymous with "waterbirds") as "birds ecologically dependent on wetlands" (Article 1.2). This definition thus includes any wetland bird species. However, at the broad level of taxonomic order, it includes especially:

- penguins: *Sphenisciformes*.
- divers: *Gaviiformes*;
- grebes: *Podicipediformes*;
- wetland related pelicans, cormorants, darters and allies: *Pelecaniformes*;
- herons, bitterns, storks, ibises and spoonbills: *Ciconiiformes*;
- flamingos: *Phoenicopteriformes*:
- screamers, swans, geese and ducks (wildfowl): *Anseriformes*;
- wetland related raptors: *Accipitriformes* and *Falconiformes*;
- wetland related cranes, rails and allies: *Gruiformes*;
- Hoatzin: *Opisthocomiformes*;

- wetland related jacanas, waders (or shorebirds), gulls, skimmers and terns: *Charadriiformes;*
- coucals*: Cuculiformes;* and
- wetland related owls: *Strigiformes*;

wetland benefits (Criterion 7) - the services that wetlands provide to people, e.g. flood control, surface water purification, supplies of potable water, fishes, plants, building materials and water for livestock, outdoor recreation and education. See also Resolution VI.1.

wetland types (Criterion 1) - as defined by the Ramsar Convention classification system, see Appendix A.

wetland values (Criterion 7) - the roles that wetlands play in natural ecosystem functioning, e.g. flood attenuation and control, maintenance of underground and surface water supplies, sediment trapping, erosion control, pollution abatement and provision of habitat.

Appendix C.

Information Sheet on Ramsar Wetlands

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

1. Date this sheet was completed/updated:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

2. Country:

3. Name of wetland:

4. Geographical coordinates:

5. Elevation: (average and/or max. & min.) **6. Area:** (in hectares)

7. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics)

8. Wetland Type (please circle the applicable codes for wetland types as listed in Appendix A of the *Strategic Framework and guidelines for the Ramsar List.*)

marine-coastal: **A • B • C • D • E • F • G • H • I • J • K • Zk(a)**

inland: **L • M • N • O • P • Q • R • Sp • Ss • Tp**
Ts • U • Va • Vt • W • Xf • Xp • Y • Zg • Zk(b)

human-made: **1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)**

Please now rank these wetland types by listing them from the most to the least dominant:

9. Ramsar Criteria: (please circle the applicable criteria; see point 12, next page.)

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8

Please specify the most significant criterion applicable to the site: _____

10. Map of site included? Please tick *yes* o -or- *no* o
(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits).

11. Name and address of the compiler of this form:

***Please provide additional information on each of the following categories by attaching extra pages* (please limit extra pages to no more than 10):**

12. Justification of the criteria selected under point 9, on previous page. (Please refer to Annex II in the *Explanatory Note and Guidelines* document)**.**

13. General location: (include the nearest large town and its administrative region)

14. Physical features: (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

15. Hydrological values: (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc)

16. Ecological features: (main habitats and vegetation types)

17. Noteworthy flora: (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc)

18. Noteworthy fauna: (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include
count data, etc.)

19. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)

20. Land tenure/ownership of: (a) site (b) surrounding area

21. Current land use: (a) site (b) surroundings/catchment

22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects: (a) at the site (b) around the site

23. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made: management practices; whether an officially approved management plan exists and whether it has been implemented)

24. Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)

25. Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)

26. Current conservation education: (e.g. visitors centre, hides, information booklet, facilities for school visits etc.)

27. Current recreation and tourism: (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

28. Jurisdiction: (territorial e.g. state/region and functional e.g. Dept of Agriculture/Dept. of Environment etc.)

29. Management authority: (name and address of local body directly responsible for managing the wetland)

30. Bibliographical references: (scientific/technical only)

Please return to: **Ramsar Convention Bureau, Rue Mauverney 28, CH-1196 GLAND, Switzerland**
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Explanatory Note and Guidelines
for the
Information Sheet on Ramsar Wetlands

Recommendation 4.7 of the Conference of Contracting Parties established that the "data sheet developed for the description of Ramsar sites . . . be used by Contracting Parties and the Bureau in presenting information for the Ramsar database". The recommendation listed the information categories covered by the "data sheet". Furthermore, Resolution 5.3 reaffirmed that a **completed** "Ramsar datasheet" and site map should be provided upon designation of a wetland to the Ramsar List. This was subsequently reiterated in Resolutions VI.13 and VI.16. The data sheet, which is formally entitled the ***Information Sheet on Ramsar Wetlands***, provides a standardized format for recording Ramsar site data. Resolution 5.3 underscored that information concerning **conservation measures**, the **functions and values** (hydrological, biophysical, floral, faunal, social and cultural) of the site, and **criteria for inclusion** (i.e., Ramsar criteria) were particularly important categories. This resolution also restated the value of using the Ramsar classification for wetland type when completing the data sheet.

In the case of a wetland which has been well-studied and well-documented, or which is the subject of special field investigations, far more information may be available than can be accommodated on the Information Sheet (including the maximum 10-page annex of additional attachment sheets). Whenever possible, copies of published papers or photocopied reports on the site should be appended to the Information Sheet. Slides or photographs of the wetland are also especially valuable. It is essential that the source providing any such additional information be noted.

In the case of very large and complex wetland systems, two levels of approach may be advisable: a broad approach for the system as a whole, and a more detailed approach for key localities within the system. Thus for a particularly large wetland complex it may be appropriate to complete an Information Sheet for the site as a whole and a series of Information Sheets for key areas within the complex.

Resolution VI.1 highlights the importance of monitoring of wetlands to help maintain their ecological character. The annex to the resolution notes that there is a need to increase the value of the information collected for describing and assessing ecological character of listed sites, and that emphasis must be given to:

- establishing a baseline by describing the functions, products and attributes of the site that give it benefits and values of international importance (necessary because the existing Ramsar criteria do not cover the full range of wetland benefits and values which should be considered when assessing the possible impact of changes at a site); sections 12, 14, 15, 16, 17, and 18 below apply.

- providing information on human-induced factors that have affected or could significantly affect the benefits and values of international importance; section 22 below applies.

- providing information on monitoring and survey methods in place (or planned) at the site; sections 23 and 24 below apply.

- providing information on the natural variability and amplitude of seasonal and/or long-term "natural" changes (e.g., vegetation succession, episodic/catastrophic ecological events such as hurricanes) that have affected or could affect the ecological character of the site. Sections 16 and 22 below apply.

The following notes relate to the individual sections of the Ramsar Information Sheet.

1. Date: The date on which the Information Sheet was completed (or updated).

2. Country: The name of the country.

3. Name of wetland: The name of the designated site in one of the 3 official languages (English, French or Spanish) of the Convention (alternative names should be given in brackets).

4. Geographical coordinates: The geographical coordinates (latitude and longitude) of the approximate centre of the wetland, expressed in degrees and minutes. If the site consists of two or more discrete units, the coordinates of the centres of each of these units should be given.

5. Elevation: The average and/or minimum and maximum elevation of the wetland in metres above mean sea level.

6. Area: The area of the designated site, in hectares.

7. Overview: A brief summary of the wetland (limited to not more than three sentences), mentioning principal physical and ecological features, and most significant values and benefits provided.

8. Wetland Type: Please first specify the position of the Ramsar site as a **Marine or coastal wetland** and/or an **Inland wetland**. Also note if the site includes or is a **Human-made wetland**. Circle the codes representing all of the wetland habitat types which are present within the site. Refer to the Ramsar Classification of "Wetland Type" in Appendix A. Then list the selected wetland types from the most to the least dominant. It is recognised that this may be difficult for large sites with a variety of habitats, but a general indication of dominance is important for properly managing information on the site.

9. Reasons for inclusion: Circle the Ramsar Criteria for identifying wetlands of international importance, as adopted by the Conference of the Parties, which are applicable to the site. Refer to the Ramsar Criteria and associated guidelines for their use. Note the criterion which most significantly characterizes the site's international importance. (See also point 12 below).

10. Outline map of site: The most detailed and up-to-date map of the wetland available should be appended to the Information Sheet. Indicate whether or not a map accompanies the Information Sheet by ticking the appropriate *yes* or *no* box.

The "ideal" Ramsar site map will clearly show the boundaries of the Ramsar site, scale, latitude, longitude and compass bearing, administrative boundaries (e.g., province, district, etc.), and display basic topographical information, the distribution of the main wetland habitat types and notable hydrological features. It will also show major landmarks (towns, roads, etc.). Indications of land use activities are especially useful.

Experience has shown that even moderately-opaque hand-drawn site boundaries or cross-hatching (to indicate zonation) often obscure other map features. While coloured annotations may appear distinguishable from the underlying map features on the map on which they were applied, it is important to remember that most colours cannot be differentiated in black & white photocopies. These potential drawbacks to otherwise useful annotations should be avoided.

The optimum scale for a map depends on the actual area of the site depicted. Generally the map should have a 1:25,000 or 1:50,000 scale for areas up to 10,000 ha; 1:100,000 scale for larger areas up to 100,000 ha; 1:250,000 for areas exceeding 100,000 ha. In simplest terms, the site should be depicted in some detail. For moderate to larger sites, it is often difficult to show detail on an A4 or 8.5" x 11" sheet at the desired scale, so generally a sheet larger than this is more appropriate. While an original map is not absolutely necessary, a very clear image is highly desirable. A map exhibiting the above attributes will be easier to scan for computerization, should this aspiration prove feasible.

11. Name and address of compiler: The full name, address and institution/agency of the person who compiled the Information Sheet, together with any telephone, fax, telex and e-mail numbers.

Information on the categories listed on the following pages is to be supplied by attaching extra pages (please limit extra pages to no more than 10).

12. Justification of criteria: Criteria codes (point 9 above) alone do not convey information on the precise way in which the criteria apply to a given site. It is therefore imperative that detailed written text in support of the circled Ramsar criteria be supplied, in addition to the criteria codes.

13. General Location: A description of the general location of the wetland. This should include the site's distance (in a straight line) and compass bearing from the nearest "provincial", "district" or other significant administrative centre, town or city. The population of the listed centre and its administrative region should also be stated.

14. Physical features: A short description of the principal physical characteristics of the site, covering the following points where relevant:

- geology and geomorphology
- origins (natural or artificial)
- hydrology (including seasonal water balance, inflow and outflow)
- soil type and chemistry
- water quality (physico-chemical characteristics)

- depth, fluctuations and permanence of water
- tidal variations
- catchment area
- downstream area (especially in the case of wetlands that are important in flood control)
- climate (only the most significant climatic features, e.g., annual rainfall and average temperature range, distinct seasons, and any other major factors affecting the wetland).

15. Hydrological values: A description of the principal hydrological values of the wetland, e.g., its role in the recharge and discharge of groundwater, flood control, sediment trapping, prevention of coastal erosion, and maintenance of water quality.

16. Ecological features: A description of the main habitats and vegetation types, listing the dominant plant communities and species, and describing any zonation, seasonal variations and long-term changes. Mention plant species that have been introduced (accidentally or on purpose) and species which are invasive. Include a brief note on the native natural plant communities in adjacent areas, as well as the present plant communities (including cultivation) if different from the native vegetation. Information on food chains should be included in this section.

17. Noteworthy flora: Information on any plant species or communities for which the wetland is particularly important (e.g., endemic species, threatened species or particularly good examples of native plant communities). **Be sure to specify *why* each species listed is noteworthy**.

18. Noteworthy fauna: A general account of the noteworthy fauna of the wetland, with details of population sizes whenever possible. Particular emphasis should be given to endemic and threatened species, economically important species and species occurring in internationally significant numbers. **Be sure to specify *why* each species listed is noteworthy**. Lists of species and/or census data should not be quoted in full as part of the Information Sheet, but should be appended to this form when available.

19. Social and cultural values: An account (more detail can be given in sections 25-27 below) of the principal social values (e.g., tourism, outdoor recreation, education and scientific research, agricultural production, grazing, water supply, fisheries production) and cultural values (e.g., historical associations and religious significance). Whenever possible, indicate which of these values are consistent with the maintenance of natural wetland processes and ecological character, and which values are derived from non-sustainable exploitation or which result in detrimental ecological changes.

20. Land tenure/ownership: Details of ownership of the wetland and ownership of surrounding areas (e.g., state, provincial, private, etc). Explain terms which have a special meaning in the country or region concerned.

21. Current land use: Principal human activities in (a) the Ramsar site itself and (b) in the surroundings and catchment. Give information on the human population in the area, with a description of the principal human activities and main forms of land use at the wetland, e.g., water supply for domestic and industrial use, irrigation, agriculture, livestock grazing,

forestry, fishing, aquaculture and hunting. Some indication of the relative importance of each form of land use should be given whenever possible. In section (b) summarize land use in the catchment which might have a direct bearing on the wetland, and land use in any downstream areas likely to be affected by the wetland.

22. Adverse factors affecting the ecological character of the site: This could include changes in activities, land uses and major development projects at the site or in the catchment or elsewhere which have had, are having, or may have a detrimental effect on the natural ecological character of the wetland (e.g., diversion of water supplies, siltation, drainage, reclamation, pollution, over-grazing, excessive human disturbance, and excessive hunting and fishing). When reporting on pollution, special notice should be taken of toxic chemical pollutants and their sources. These should include industrial and agricultural-based chemical effluents and other emissions. Natural events including vegetative succession which have had, are having or are likely to have an impact on the ecological character of the site should be detailed, so as to facilitate monitoring. Please distinguish between potential and existing adverse factors and where possible, between adverse factors occurring in the site and those external to, but (possibly) affecting, the site. List introduced exotic species and give information on why and how they were introduced. In all cases, where such data exist, supply measurable/quantifiable information to enable more precise monitoring of ecological character.

23. Conservation measures taken: Details of any protected areas established at or around the wetland, and any other conservation measures taken at the site, such as restrictions on development, management practices beneficial to wildlife, closures of hunting, etc. Include information on any monitoring and survey methods and regimens in place at the site. Describe any application of the Ramsar wise use guidelines (Recommendation 4.2) and additional guidance on wise use (Resolution 5.6) at the site. If a reserve has been established, please give the date of establishment and size of the protected area. State whether a management plan exists, if it is officially approved and whether it has been implemented. (The Conference of the Parties has called for the development of management plans for all Ramsar sites). Any application of "catchment" integrated site management principles, or in a coastal site, of integrated coastal zone management, should be noted. If only a part of the wetland is included within a protected area, the area of wetland habitat which is protected should be noted. An assessment of the enforcement of legislation and effectiveness of any protected areas should be given whenever possible. Involvement of local communities and indigenous people in the management of the site should also be described. Details of inclusion on the Montreux Record and/or visits under the Ramsar Management Guidance Procedure should be described.

24. Conservation measures proposed but not yet implemented: Details of any conservation measures which have been proposed for the site, including any proposals for legislation, protection and management. Summarize the history of any long-standing proposals which have not yet been implemented, and make a clear distinction between those proposals which have already been officially submitted to the appropriate government authorities, and those proposals which have not as yet received official government endorsement, e.g., recommendations in published reports and resolutions from specialist meetings. Also mention any management plan which exists (or is in preparation) but has not yet been implemented.

25. Current scientific research and facilities: Details of any current scientific research and information on any special facilities for research.

26. Current conservation education: Details of any existing programmes and facilities for conservation education and training and comments on the educational potential of the wetland.

27. Current recreation and tourism: Details of the present use of the wetland for recreation and tourism, with details of existing or planned facilities. Please state the annual number of tourists. Indicate if tourism is seasonal, and of what type.

28. Jurisdiction: The name of the government authority with a) *territorial jurisdiction* over the wetland, e.g., state, region or municipality, etc., **and** the name of the authority with b) *functional jurisdiction* for conservation purposes, e.g., Department of Environment, Department of Fisheries, etc.

29. Management authority: The name and address of the body responsible for the direct *local* conservation and management of the wetland.

30. References: A list of key references relevant to the wetland, including management plans, major scientific reports and bibliographies. When a large body of published material is available on the site, only the most important references need be cited, with priority being given to recent literature containing extensive bibliographies. Reprints or copies of the most important literature should be appended whenever possible.

Appendix D.

References

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Bruton, M.N. & Merron, G.S. 1990. The proportion of different eco-ethological sections of reproductive guilds of fishes in some African inland waters. *Env. Biol. Fish* 28: 179-187.

Green, A.J. 1996. Analysis of globally threatened Anatidae in relation to threats, distribution, migration patterns, and habitat use. *Conservation Biology* 10: 1435-1445.

Rose, P.M. & Scott, D.A. 1997. *Waterfowl population estimates*. Second edition. Wetlands International Publication 44, Wageningen, The Netherlands.

Scott, D.A. & Rose, P.M. 1996. *Atlas of Anatidae populations in Africa and Western Eurasia*. Wetlands International Publication 41, Wageningen, The Netherlands.

Walter, K.S. & Gillett, H.J. (eds.) 1998. *1997 IUCN Red List of Threatened Plants*. IUCN, Gland. 862 pp.

Welcomme, R.L. 1979. *Fisheries ecology of floodplain rivers*. Longman, London. 317 pp.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Sites in the Ramsar List of Wetlands of International Importance: official descriptions, conservation status, and management plans, including the situation of particular sites in the territories of specific Contracting Parties

1. RECALLING Article 2.1 which states that *"each Contracting Party shall designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance"* and that *"the boundaries of each wetland shall be precisely . . . delimited on a map*";

2. AWARE of Article 3.1 which specifies that "*Contracting Parties shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List*";

3. ALSO AWARE of Article 3.2 which provides that "e*ach Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change*" and that "*information on such changes shall be passed without delay*" to the Ramsar Bureau;

4. NOTING Recommendation 4.7 which adopted the 'Information Sheet on Ramsar Wetlands' (hereinafter referred to as 'Ramsar Information Sheet', RIS) as the means for presenting site descriptions for the Ramsar Database;

5. FURTHER NOTING Resolutions 5.3 and VI.13, as well as Operational Objective 5.3 of the Convention Strategic Plan 1997-2002, which requested Contracting Parties to ensure that RISs and maps have been submitted for all sites;

6. ALSO NOTING Action 5.2.3 of the Convention Strategic Plan 1997-2002 aims to "*ensure that by the 8th COP (2002), management plans or other mechanisms are in preparation, or in place, for at least half of the Ramsar sites in each Contracting Party*", and WELCOMING the indications provided in National Reports for this Conference that this is the case for 416 sites, or 44 per cent of those included in the Ramsar List;

7. ALSO WELCOMING the advice provided in the National Reports for this Conference that for 358 Ramsar sites (37%) there exists some form of monitoring regime to help guide management actions and assist detection of changes in ecological character, pursuant to Article 3.2 of the Convention;

8. RECOGNIZING that Recommendation 6.13 called upon the Scientific and Technical Review Panel (STRP) to monitor the use of the Ramsar *Guidelines on management planning for*

Ramsar sites and other wetlands, as adopted by Resolution 5.7, and to review the most recent advances in this area;

9. RECALLING Recommendation 6.17 which referred to numerous actions urged for addressing issues of ecological change affecting specific sites in the territories of several Contracting Parties;

10. CONSIDERING Recommendation 4.8 and Resolution 5.4 which established the 'Montreux Record' of Ramsar sites where changes in ecological character have occurred, are occurring, or are likely to occur, and Resolution VI.1 which provided further guidance for the operation of the Montreux Record; and

11. HAVING ALSO CONSIDERED the recommendations contained in the document for this Conference Ramsar COP7 DOC. 13.3 relating to the improved application of the Montreux Record and Management Guidance Procedures;

THE CONFERENCE OF THE CONTRACTING PARTIES

12. WELCOMES the statements made in the National Reports or during this Conference concerning the impending, or planned, extensions to existing Ramsar sites, and designations of new Ramsar sites in the near future or during the next triennium, from the following 56 Contracting Parties: Albania (1 site), Algeria (4 sites), Argentina (1 site), Australia (4 sites), Austria (1 site), Bangladesh (1 site), Belgium (1 site), Brazil (2 sites), Canada (3 sites and extension of 2 existing sites), Costa Rica (2 sites), Ecuador (5 new sites and 1 extension), Estonia (10 sites), Finland (50 sites), France (3 sites), Germany (1 site), Guatemala (3 sites and 1 extension), Guinea-Bissau (2 sites), Honduras (7 sites), Hungary (4 sites), India (25 sites), Indonesia (3 sites), Islamic Republic of Iran (2 sites), Israel (4 sites), Ireland (19 sites), Kenya (1 site), Latvia (1 site), Madagascar (1 site), Malawi (2 sites), Mongolia (6 sites), Namibia (2 sites), Nepal (3 sites), Netherlands (27 sites), New Zealand (3 sites), Nicaragua (3 sites), Niger (1 site), Norway (12 sites), Panama (2 sites), Papua New Guinea (2 sites), Philippines (3 sites), Poland (5 sites), Republic of Korea (1 site), Romania (8 sites), Russian Federation (90 sites), Slovak Republic (2 sites), Slovenia (4 sites), Sweden (21 new sites and 9 extensions), Suriname (2 sites), Switzerland (2 sites), The Gambia (2 sites), Trinidad and Tobago (1 site), Uganda (3 sites), Ukraine (10 sites), United Kingdom (7 sites in Bermuda, 1 site in the British Indian Ocean Territory, 1 site in the British Virgin Islands, and 1 site in Scotland), Vietnam (3 sites), and Zambia (7 sites); and encourages these Contracting Parties, if they have not already done so, to forward completed Ramsar Information Sheets and boundary maps for these 13 site extensions and 398 new sites to the Bureau as soon as possible;

13. ALSO WELCOMES the advice received during this Conference of the accession of Lebanon (the 115th Contracting Party) with the designation of 3 Ramsar sites, and the impending accession of Cuba with the proposed designation of Cienaga de Zapata, the largest wetland in the Carribean island countries;

14. EXPRESSES DEEP CONCERN that there remain a number of Ramsar sites for which an official description has not been provided or updated, or has not been provided in one of the three official working languages of the Convention, and/or for which a suitable map has not been submitted;

15. CALLS UPON the following Contracting Parties, as a matter of the highest priority, to submit site descriptions conforming with the Ramsar Information Sheet format, and in one of the Convention's three official languages, for a total of 54 Ramsar sites within their territories where no such descriptions have yet been provided (as indicated in Annex 1 of document Ramsar COP7 DOC. 13.3): Algeria (1 site), Belize (1 site), Gabon (3 sites), Germany (10 sites), Ireland (23 sites), Islamic Republic of Iran (1 site), Mauritania (1 site), Monaco (1 site), Netherlands (10 sites), Spain (1 site) and Yugoslavia (2 sites);

16. FURTHER CALLS UPON the following Contracting Parties, as matter of the highest priority, to provide suitable maps for a total of 8 Ramsar sites where no such maps have yet been submitted (as indicated in Annex 2 of document Ramsar COP7 DOC. 13.3): Bahrain (1 site), India (4 sites), Netherlands (2 sites), and The Former Yugoslav Republic of Macedonia (1 site);

17. URGES the following Contracting Parties to provide to the Bureau as soon as possible Ramsar Information Sheets, in one of the Convention's official working languages, for a total of 21 sites where only other language versions have so far been submitted (as indicated in Annex 3 of document Ramsar COP7 DOC. 13.3): Germany (18 sites) and The Netherlands (3 sites);

18. FURTHER URGES the following Contracting Parties that have yet to provide updated Ramsar site descriptions, using the current Ramsar Information Sheet, to do so as a matter of priority for a total of 29 sites (as indicated in Annex 4 of document Ramsar COP7 DOC. 13.3): Bulgaria (2 sites), Denmark (11 sites), Ghana (1 site), Guinea-Bissau (1 site), India (6 sites), Ireland (1 site), Kenya (1 site), Mali (3 sites), Spain (1 site), Uganda (1 site), and the United Kingdom (1 site); and NOTES the statement of Denmark that the Greenland Home Rule Administration, which has competence for implementation of the Convention in Greenland, will complete the process of updating Ramsar Information Sheets for the 11 Ramsar sites in Greenland by the year 2000;.

19. AGREES to raise the Convention's target for management planning at Ramsar sites, as set by Action 5.2.3 of the Strategic Plan 1997-2002, and URGES Contracting Parties to ensure that, by COP8 (2002), management plans are in preparation, or in place, for at least three quarters of the Ramsar sites in each Contracting Party and to seek to have these plans being implemented in full;

20. ENCOURAGES Contracting Parties to adopt and apply, as part of their management planning for Ramsar sites and other wetlands, a suitable monitoring regime, such as provided by Resolution VI.1, and to incorporate within these monitoring regimes the Convention's *Wetland Risk Assessment Framework* (Resolution VII.10);

21. EXPRESSES ITS APPRECIATION to those Contracting Parties and others which provided their advice and experience during the STRP's review of the Ramsar *Guidelines on management planning for Ramsar sites and other wetlands* (Resolution 5.7); REAFFIRMS the continuing value of these Guidelines, as reported by the STRP in document Ramsar COP7 DOC. 13.3, Annex 5; ACCEPTS the Panel's recommendations for areas where the Guidelines can be further elaborated; and INSTRUCTS the STRP, with support from the Ramsar Bureau, to prepare for consideration at COP8 further guidance with respect to management planning, which reviews the latest approaches to environmental, social and

economic impact assessment and cost-benefit analysis, zonation, multiple use, design and maintenance of buffer zones, and the application of the precautionary principle;

22. FURTHER ENCOURAGES Contracting Parties to take into consideration the Ramsar *Guidelines on management planning for Ramsar sites and other wetlands* in developing their policy and legal instruments relating to wetlands (Resolutions VII.6 and VII.7 respectively) and in promoting the full participation of local stakeholders in the development and, where appropriate, the implementation of management plans for Ramsar-listed and other wetlands (Resolution VII.8);

23. NOTES WITH APPROVAL that, since COP6, Management Guidance Procedures for Montreux Record sites have been conducted in Costa Rica, Denmark, Guatemala, the Islamic Republic of Iran (3 sites), and Italy (3 sites), and that for a number of other Montreux Record sites the Ramsar Bureau has made site visits and held discussions with government officials and others to assist Contracting Parties in addressing management issues in those sites;

24. WELCOMES the actions taken by Algeria, Bolivia, Germany, Italy, Mexico, South Africa and Venezuela, all of which have removed sites from the Montreux Record since COP6, and URGES those Contracting Parties with sites on the Montreux Record, and especially those for which a Management Guidance Procedure has been conducted, to increase their efforts to address the management problems of these sites with a view to their early removal from the Record;

25. ALSO WELCOMES the updates provided by Contracting Parties, through their National Reports to this Conference, on the status of their Montreux Record sites, and NOTES WITH PLEASURE that a number of these Contracting Parties have indicated their intention to seek the removal of sites from the Montreux Record in the near future;

26. NOTES the statement of Belgium that the Ramsar site 'De Ijzerbroeken te Diksmuide en Lo-Reninge' should once more be included in the Montreux Record, owing to difficulties in maintaining adequate water quantity and quality;

27. WELCOMES the statement of Ukraine that two Ramsar sites ('Tendrivska Bay' and 'Yagorlytska Bay') can now be removed from the Montreux Record, notes that supporting information has been communicated to the Bureau, and encourages the Ukraine authorities to continue their efforts for the conservation and wise use of these wetlands;

28. ALSO WELCOMES the indication by Denmark that Ringkøbing Fjord Ramsar site can be removed from the Montreux Record, following implementation of a range of conservation measures, and further to the recommendations of the 1996 Ramsar Management Guidance Procedure report;

29. NOTES WITH CONCERN that the Austrian Ramsar site 'Donau-March-Auen', referred to in Recommendation 6.17, cannot be removed from the Montreux Record owing to the plans for construction of a waterway linking the Danube, Oder and Elbe rivers, which could adversely affect the ecological character of this site, as well as additional Ramsar sites in Austria, the Czech Republic and the Slovak Republic;

30. ACKNOWLEDGES the significant efforts made by the Spanish authorities to address the impacts of the accidental release of toxic mining waste upstream of Montreux Record-listed Doñana Ramsar site, and urges the continuation of all possible measures to ensure that the ecological character of Doñana is maintained and enhanced, in particular through implementation of the 'Doñana 2005' initiative;

31. NOTES that Australia will bring forward boundary redefinitions for Coongie Lakes and Western Shoreline of Port Phillip Bay Ramsar sites and will use these as case study sites for the work on boundary definition identified in Resolution VII.23;

32. ALSO NOTES that construction of a water way to link Germany, Poland, Belarus, and Ukraine may have significant impacts on wetlands and INVITES the States concerned to undertake a full review and assessment of these impacts, in accordance with international transboundary impact assessment procedures;

33. REQUESTS those Contracting Parties with sites included in the Montreux Record, and which have not provided updates on the conservation status of these sites as part of their National Reports to this Conference or other appropriate means, to do so as soon as possible, and to advise on the likely time frame for the removal of these sites from the Record;

34. DIRECTS the Ramsar Bureau, with assistance from the STRP, to investigate and report to COP8 on the feasibility of the Convention establishing a record (the "San José Record") of sites where management plans are being implemented which are models for demonstrating application of the Ramsar *Guidelines for the implementation of the wise use concept*;

35. EXPRESSES THANKS to those Contracting Parties that provided in their National Reports advice on the actions taken in response to the issues identified with respect to particular sites by COP6 Recommendation 6.17 (including 6.17.1-5); CONGRATULATES those that have taken appropriate actions; and URGES those which have yet to provide such advice or take remedial actions do so as soon as possible;

36. NOTING Recommendation 6.17.5, warmly welcomes the statement made by Romania on behalf of the Lower Danube States of Bulgaria, Moldova, Romania and Ukraine concerning their initiative to establish a Lower Danube Green Corridor as a 'Gift to the Earth' in cooperation with WWF International;

37. EXPRESSES ITS APPRECIATION to those Contracting Parties which in their National Reports to this Conference provided information, in accordance with Article 3.2 of the Convention, on changes in ecological character that have occurred, are occurring, or may occur at one or more of their Ramsar sites, namely: Albania, Argentina, Australia, Bangladesh, Belgium, Bolivia, Botswana, Brazil, Canada, Chile, Comoros, Czech Republic, Democratic Republic of Congo, Germany, Guinea, Honduras, Hungary, Ireland, Japan, Lithuania, Malta, Mexico, Mongolia, New Zealand, Nicaragua, Pakistan, Poland, Portugal, Peru, Sri Lanka, The Gambia, Togo, United Kingdom, Venezuela and Yugoslavia; COMMENDS in particular Australia, Germany, Ireland, Japan and the United Kingdom for the detailed advice provided on this matter; and URGES all of these Contracting Parties to consider, at the earliest opportunity, the possible inclusion of these sites onto the Montreux Record;

38. EXPRESSES ITS GRATITUDE to those Contracting Parties and organizations that have made voluntary contributions for financing the cost of Management Guidance Procedures, and URGES the donor community to continue supporting this activity under the Convention;

39. DECIDES to replace the term 'Management Guidance Procedure' with the term 'Ramsar Advisory Mission' in order to make the purpose of this tool of the Convention more immediately obvious; and

40. DIRECTS the Ramsar Bureau, as resources allow, to document, publish and promote the "success stories" of the Montreux Record mechanism and its associated Ramsar Advisory Missions.

Resolution VII.12.1

Greek Ramsar sites

1. RECALLING Recommendations 4.9.5, 5.5.1 and 6.17.1 on Greek Ramsar sites which requested the Greek Government to submit delineation maps, to prepare management plans, to ensure wise use and to put in place Presidential Decrees for the protection of all Greek Ramsar sites;

2. NOTING that the precise delineation of the 10 Greek Ramsar wetlands and the submission of the relevant maps to the Ramsar Bureau has been realised, legislative acts (Ministerial Decisions) for the protection of eight sites have been adopted (in addition to the existing Presidential Decree for Lake Prespa National Park), and preliminary Management Schemes have been set up for all sites;

3. FURTHER NOTING that the Greek Government has made progress in implementing conservation programmes in collaboration with regional and local authorities, including elaboration of management plans and Presidential Decrees, preparation for the establishment of permanent Management Bodies, and actions promoting wise use and public awareness of wetlands, and, furthermore, that a national strategy on wetland conservation is being elaborated; and

4. TAKING INTO CONSIDERATION the report of the Group of Experts, set up in the framework of the Management Guidance Procedure, for the evaluation of actions taken for the conservation of the 10 Greek Ramsar sites with the aim of removing them from the Montreux Record;

THE CONFERENCE OF THE CONTRACTING PARTIES

5. ACKNOWLEDGES the efforts made by the Greek Government since the last meeting of the Conference of the Contracting Parties to improve the condition of the Greek Ramsar sites;

6. WELCOMES the removal of the sites Lake Mikri Prespa, Artificial Lake Kerkini, and Evros Delta from the Montreux Record, in the light of the conclusions and recommendations made by the Group of Experts jointly established by the Greek Government and the Ramsar Bureau, as well as the proposed expansion of the Prespa site to include the Greek part of the Lake Megali Prespa; and STRONGLY ENCOURAGES the continuation of the positive management measures undertaken, including water level management to secure the ecological character of all Ramsar sites;

7. FURTHER WELCOMES the positive efforts being made to maintain the ecological character of Lake Volvi, part of Lakes Volvi and Koronia Ramsar site; and EXPRESSES THE HOPE that development and implementation of additional measures for Lake Koronia will enable the removal of this site from the Montreux Record in due course;

8. APPLAUDS the efforts being made by the Greek authorities to ensure the removal of solid waste from the wider area of the Axios-Loudias-Aliakmon Delta Ramsar site;

WELCOMES the intention of the Greek Government to designate the Alyki Kitrous lagoon as an additional Ramsar site adjacent to the Axios – Loudias – Aliakmon site; and STRONGLY ENCOURAGES intended measures to ensure adequate water flows in the Axios river and steps towards the removal of illegal constructions;

9. NOTES the recommendation of the Group of Experts that the Axios-Loudias-Aliakmon Delta Ramsar site could be removed from the Montreux Record following successful implementation of these measures; and EXPRESSES THE HOPE that it will be possible to do so, soon after this Conference; and

10. ENCOURAGES the Greek Government to continue its efforts by completing the management plans, establishing permanent Management Bodies, and adopting Presidential Decrees for all Greek Ramsar sites, and, in particular, to make all possible efforts to ensure and enhance the conservation values of the sites Lake Vistonis, Lake Ismaris and adjoining lagoons, Nestos Delta, Amvrakikos Gulf, Messolonghi Lagoon, Kotychi Lagoon and Lake Koronia according to the conclusions included in the report of the Group of Experts.

Resolution VII.13

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Guidelines for identifying and designating karst and other subterranean hydrological systems as Wetlands of International Importance

1. RECALLING Resolution VI.5, which added "subterranean karst and cave hydrological systems" to the Ramsar classification system for wetland type and urged Contracting Parties "*to assess the significance of karst and cave wetland systems within their territories and to consider their designation for the List [of Wetlands of International Importance]";*

2. AWARE of the important functions and values of karst and other subterranean hydrological systems, including the provision of vital services to human communities as well as intrinsic value for the conservation of biological diversity;

3. RECOGNIZING that conservation and sustainable use of such systems requires unified consideration of both surface and subterranean wetland components;

4. NOTING that IUCN-The World Conservation Union has published "Guidelines for Cave and Karst Protection";

5. GRATEFUL to the Government of Slovenia for having hosted a Central European workshop on this issue in September 1998, which resulted in draft guidelines for applying the Ramsar Criteria to identify karst and other subterranean hydrological systems of international importance, and for completing the Information Sheet on Ramsar Wetlands for such sites;

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6. ADOPTS for application by Contracting Parties and others the attached:

   a) Guidelines for identifying and designating karst and other subterranean hydrological systems as Wetlands of International Importance, in Annex I, and

   b) the related additions to the Guidelines for completing the Information Sheet on Ramsar Wetlands, in Annex II;

7. URGES Contracting Parties to include and consider karst and other subterranean hydrological systems in their wetland inventories, wetland policies, and wetland management planning, to ensure, as far as possible, the maintenance of the ecological character of these systems and hence of their functions and values.

8. CALLS ON Contracting Parties to renew their efforts to designate appropriate examples of karst and other subterranean hydrological systems for the List of Wetlands of International Importance, taking into consideration the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11);

9. REQUESTS Contracting Parties to report to the 8th Meeting of the Conference of the Contracting Parties on progress made with initiatives for the conservation and wise use of karst and other subterranean hydrological systems;

10. INSTRUCTS the Ramsar Bureau to integrate, as appropriate, the Annexes to this Resolution into the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11).

Annex I

Guidelines for identifying and designating karst and other subterranean hydrological systems as Wetlands of International Importance

1. The ***Values*** of karst wetlands are numerous. In accordance with Article 2.2 of the Ramsar Convention, "*wetlands should be selected for the List on account of their international significance in terms of biology, botany, zoology, limnology or hydrology"*. From this perspective the principal wetland conservation values of karst and other subterranean hydrological systems include:

   a) uniqueness of karst phenomena/functions and functioning;
   b) inter-dependency and fragility of karst systems and their hydrological and hydrogeological characteristics;
   c) uniqueness of these ecosystems and endemism of their species;
   d) importance for conserving particular taxa of fauna and flora.

2. In addition to their many natural values, karst systems also have important socio-economic values, which include (but are not limited to) the supply of drinking water, water for grazing animals or agriculture, tourism and recreation. Karst wetland systems may play an especially vital role in ensuring adequate water supplies for human communities in generally dry surface landscapes.

3. ***Threats*** can be generated within or outside of the karst area. In general terms, many "living" karst areas are wetlands, whether surface or subterranean. The subterranean systems are, in many cases, still well-preserved, but due to increasing development pressures they are becoming endangered. The pressures are both direct (visitors to caves, researchers) and indirect, including pollution of all kinds (particularly water pollution; dumping of solid waste, sewage; development of infrastructure, etc.), water abstraction, retention in reservoirs and other uses.

4. To avoid confusion in **terminology**, the formulations "karst and other subterranean hydrological systems" and "subterranean wetlands" should be used throughout. Regardless of genesis, these terms should be used to include all subterranean cavities and voids with water (including ice caves). Such sites would be eligible for inclusion in the Ramsar List whenever the site selection criteria are fulfilled. These terms should also clearly cover coastal, inland and human-made subterranean sites, following the broad approach of the Ramsar definition of "wetland" and thereby offering a high degree of flexibility for each Contracting Party.

5. The specialized technical terminology used to describe karst and other subterranean phenomena makes a glossary indispensable for non-experts. UNESCO's *Glossary and Multilingual Equivalents of Karst Terms* (UNESCO, 1972) can be used as a detailed source of reference, but a simplified glossary is proposed for Ramsar purposes and is provided below at paragraph 14.

6. Information provided for the purposes of Ramsar site designation and management of subterranean wetlands should be according to:

a) what is available (in many cases this may be limited, and subject to future research efforts); and

b) what is appropriate for the scale being considered. For example, local and national management authorities should have access to the full range and detail of information available, whilst a summary will normally suffice for international purposes, notably completion of the Information Sheet on Ramsar Wetlands.

7. Ramsar designation should be considered as part of a mosaic of national and international instruments. In this way, the most representative part(s) of larger karst/subterranean systems might be designated under the Ramsar Convention, with land-use planning controls, etc., applied to achieve "wise use" of the whole system and its catchment area.

8. Site survey and mapping may present special problems and should be done according to practical possibilities. For example, a two dimensional ground plan of subterranean features, projected against surface features, would suffice as a Ramsar site map. It is recognized that many Contracting Parties will not have the resources to generate three-dimensional representations of subterranean sites, and the lack of such resources should not be a barrier to designation.

9. Optimal boundaries for karst/subterranean Ramsar sites would cover whole catchments, but this is unlikely to be realistic in most cases. Site boundaries should, however, cover the areas which have the most significant direct or indirect impacts on the features of interest.

10. In applying the Ramsar Criteria for Identifying Wetlands of International Importance, special attention should be given to unique and representative hydrological, hydrogeological, biological and landscape values. In this regard intermittent karst and thermal springs can be of special interest.

11. The flexible approach of the Convention allows countries to choose the most appropriate boundaries for national or site-specific situations. In particular, designation of either or both single cave and complex systems (for example, with surface and subterranean wetlands) can be envisaged.

12. The Ramsar definition of wetlands (Article 1.1) should be read/understood to include surface and subterranean wetlands, although the Convention text does not explicitly refer to these systems. Text to this effect should be inserted in section IV of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11).

13. Special consideration should be given to the cultural and socio-economic values of karst and other subterranean hydrological systems and to the fact that their "wise use" must be implemented at both national and local levels. A clear distinction is required between designation, management and monitoring of these wetlands.

14. The following is a glossary of terms relating to karst and other subterranean hydrological systems to be applied when completing the Information Sheet on Ramsar Wetlands:

Allogenic drainage: karst drainage that is derived from surface run-off that originates on adjacent impermeable, rocks. Also known as allochthonous drainage.

Aquiclude: relatively impermeable rock acting as the boundary to an aquifer.

Aquifer: a water-bearing horizon, sufficiently permeable to transmit groundwater and yield such water to wells and springs.

Aquitard: a bed of rock that retards, but does not totally inhibit, the movement of water into or out of an aquifer.

Artesian flow: flow through a confined aquifer where the entire aquifer is saturated and the flow is under hydrostatic pressure.

Autogenic drainage: karst drainage that is derived entirely by absorption of meteoric water into the karst rock surface. Also known as autochthonous drainage.

Backflooding: flooding due to backup of excess flow behind a constriction in a major conduit.

Bedding plane: a depositional lamination in sedimentary rocks.

Bedding plane cave: cave passages guided by bedding.

Blind valley: a valley that terminates where its stream sinks, or once sank, underground.

Breakdown: Synonym for the collapse of caves, or, in American usage, for the debris produced by collapse.

Calcium carbonate: naturally occurring compound with the chemical formula $CaCO_3$, the major component of carbonate rocks including limestone and marble.

Carbonate rock: a rock consisting of one or more carbonate minerals.

Cave: A natural hole in the ground, large enough for human entry. This does not include hydrologically very significant, conduits or fissures. A cave may be a single, short length of accessible passage, or an extensive and complex network of tunnels as long as the hundreds of kilometers in the Flint Mammoth Cave System. Most caves are formed by dissolution in limestone but sandstone caves, lava caves, glacier caves and tectonic caves also occur. In some countries a cave is regarded as being a horizontal opening, as opposed to a pothole, or jama, which is a vertical opening, or natural vertical shaft.

Cave lake: any underground lake, it may be the entrance to a sump, in vadose caves formed by ponding behind banks of sediment or gour barriers.

Chamber: an enlargement in a cave passage or system. The largest chamber currently known, Sarawak Chamber in Sarawak, is over 700m long, up to 400m wide and 70m high.

Classical Karst: the region called Kras in Slovenia, which gave its name to the karst landscape.

Conduit: dissolutional voids, including enlarged fissures and tubular tunnels; in some usage the term is restricted to voids that are water-filled.

Conduit flow: underground water flow within conduits.

Corrosion: the erosion of rock by chemical activity that leads to dissolution.

Doline: a circular closed depression, saucershaped, conical or in some cases cylindrical. Dolines may form by dissolution, collapse, or a combination of these. They are ubiquitous features of limestone karst, but can form in or above any soluble rock; subsidence dolines are developed in insoluble sediment leached or collapsed into an underlying cavernous limestone. The largest dolines in Slovenia, Smrekova draga for instance, are more than 1 km long and over 100 m deep.

Dry valley: valley without a permanent surface stream. It became dry when underground drains formed or were re-opened.

Entrenchment: erosion by a freely flowing stream to form a canyon.

Estavelle: opening that acts as either a sinkhole or a spring, depending upon groundwater level.

Floodwater zone: the zone through which the level of the water table fluctuates, also epiphreatic zone.

Freshwater lens: fresh groundwater found beneath permeable limestone islands or peninsular land masses. It is limited by a water table above and below by a mixing zone between fresh and saline groundwater along the halocline.

Gour: pool formed by calcite deposition. Gours can grow into large dams many metres high and wide. Travertine, gours form in the open air.

Groundwater: a subsurface water that lies below the water table in the saturated or phreatic zone.

Gypsum: mineral or rock composed of the hydrated calcium sulphate, $CaSO_4 .2H_20$.

Gypsum cave: gypsum is very soluble and vadose and phreatic caves can form in it. Largest caves are in the Podolie region of the Ukraine, where the Optimisticeskaja only has around 180 km of passage.

Halocline: the interface between fresh groundwater and saline groundwater.

Hydraulic gradient: the slope of the water table in an aquifer.

Ice cave: a cave in rock filled with permanent ice.

Input point: the start of underground drainage route or aquifer.

Karst: a landscape created on soluble rock with efficient underground drainage. Karst is characterised by caves, dolines, a lack of surface drainage and is mainly, but not exclusively, formed on limestone. The name derives from Kras - the Classical Karst from Slovenia. In this original, temperate, karst the dominant landforms are dolines, but contrasting landscapes are the pinnacle, cone, and tower karsts of the tropics, and the fluviokarst and glaciokarst of colder climates. The term "kras" originally denoted bare, stony ground in the Slovene language.

Limestone: sedimentary rock containing at least 50% calcium carbonate by weight.

Meteoric water: water that originates from any form of atmospheric precipitation.

Moonmilk: fine-grained mineral deposit of calcite, aragonite, formed largely by bacterial deposition.

Output point: a point where water exits from an underground drainage route or aquifer.

Passage: any negotiable part of a cave system, horizontal rather than vertical or sub-vertical sections. Cave passages vary in size and shape, the largest known is Deer Cave, which is up to 170m wide and 120m high, in the Mulu karst of Sarawak.

Percolation water: water moving slowly through the fissure network of a limestone. Usually percolation water enters the limestone through a soil cover. Percolation water accounts for most of the storage in a limestone aquifer, responds slowly to flooding in comparison to sinkhole water.

Permeability: the ability of a rock to transmit water. Permeability may be primary, due to the effects of interlinked porosity or open tectonic fractures, or secondary, due to the dissolutional enlargement of fissures developing conduit permeability.

Phreas: the zone of saturated rock below the water table, within which all conduits are water filled.

Phreatic cave: cave developed below the water table, where all voids are water filled within the phreas. Phreatic caves may include loops deep below the water table, karstic maturity encourages shallow phreatic development just below the water table.

Piezometric surface: the level to which a column of water ascends in an observation well (piezometric tube).

Pit: shaft or pothole from the surface or inside a cave, vertical segment of a gallery.

Pocket valley: a valley that begins abruptly and has no headwaters, having formed from and below the site of a karst spring.

Polje: large flat-floored closed karst depression, with commonly alluviated floor. Streams or springs drain into poljes and outflow is underground through ponors. Commonly the ponors cannot transmit flood flows, so many poljes turn into wet-season lakes. The form of some poljes is related to the geological structure, but others are purely the products of lateral dissolution and planation.

Ponor: also a sinkhole or swallowhole.

Pothole: a single shaft, or an entire cave system that is dominantly vertical.

Pseudokarst: a landscape containing karst-like features but not formed by bedrock dissolution.

Relict cave: inactive cave segment, left when the water is diverted elsewhere.

Salt karst: karst landforms developed upon halite or halite-rich rock.

Shaft: natural vertical, or steeply inclined, section of a cave passage, deepest known shaft is the entrance shaft on the Kanin plateau, Slovenia; it is 643 m deep, with no ledges.

Sink: a point where a stream or river disappears underground, through a choke, or may flow into an open horizontal cave or vertical shaft. The character of sink water, flowing directly and rapidly into an open cave, distinguishes it from percolation water. Sink water is also referred to as sub-surface runoff.

Speleology: Scientific study of caves, including aspects of sciences, such as geomorphology, geology, hydrology, chemistry and biology, and also the many techniques of cave exploration.

Speleothem: general term for all cave mineral deposits, embracing all stalactites, flowstone, flowers etc.

Spring: point where underground water emerges on to the surface, not exclusive to limestone, but generally larger in cavernous rocks. Among the world's largest is the Dumanli spring, Turkey, with a mean flow of over 50 cubic metres per second.

Subcutaneous zone: a zone of generally highly weathered rock that lies below the soil but above the main, relatively unweathered, rock mass of a karst aquifer.

Sump: a section of flooded passage, also siphon.

Travertine: calcareous mineral deposited by flowing water, where plants and algae cause the precipitation by extracting carbon dioxide from the water and give travertine its porous structure. Capillary forces, loss of head and aeration also influence travertine deposition.

Troglobite: a creature that lives permanently underground beyond the daylight zone of a cave. Many troglobitic species are adapted in some way to living in a totally dark environment.

Troglophile: an animal that enters beyond the daylight zone of a cave intentionally and habitually and generally spends part of its life in the underground environment.

Trogloxene: a creature that will enter a cave on occasions but does not use the cave either for temporary or permanent habitation.

Vadose cave: a cave that underwent most of its development above the water table within the vadose zone, where drainage is free-flowing under gravity. The gravitational control of vadose flow means that all vadose cave passages drain downslope, they exist in the upper part of a karst aquifer, and they ultimately drain into the phreatic zone or out to the surface.

Vadose zone: the zone of rock above the water table, with free downward drainage, only partially water-filled. Also known as unsaturated zone, and comprises the soil, a subcutaneous or epikarstic zone, and a free-draining percolation zone.

Vauclusian rising: a type of rising or spring where direct drainage from the phreas flows up a flooded cave passage under pressure to emerge in daylight. Such risings are named

after the Fontaine de Vaucluse in southern France with a mean flow of 26 cubic metres per second. It is vertical and 243m deep. Discharge fluctuates seasonally.

Water table: the top surface of a body of groundwater that fills the pore spaces within a rock mass. Above it lies the freely draining vadose zone, and below it lies the permanently saturated phreas. Individual cave conduits may be above or below the water table, and therefore either vadose or phreatic, and the water table cannot normally be related to them. The water table slope (hydraulic gradient) is low in limestone due to the high permeability, and the level is controlled by outlet springs or local geological features. High flows create steeper hydraulic gradients and hence rises in the water level away from the spring. In France's Grotte de la Luire, the water level in the cave (and therefore the local water table) fluctuates by 450m.

Water tracing: underground drainage links through unexplored caves confirmed by labelling input water and identifying it at points downstream. The common labelling techniques involve the use of fluorescent dyes (uranine, fluorescein, rhodamine, leucophor, pyranine etc.), lycopodium spores, or chemicals such as common salt. The longest successful water trace was in Turkey over a distance of 130 km.

Annex II

Additions to the Guidelines for completing the *Information Sheet on Ramsar Wetlands*

The proposed additions are shown in **bold.** Note that the paragraph numbers shown below correspond to those from the approved Guidelines for completing the *Information Sheet on Ramsar Wetlands*.

3. Name of wetland: The name of the designated site in one of the three official languages (English, French or Spanish) of the Convention (alternative names should be given in brackets). **Alternative or local names for the area should be indicated in brackets**.

6. Area: The area of the designated site, in hectares. **In the case of karst and other subterranean hydrological systems, it is suggested that the area be calculated by projecting subterranean features against the surface.**

7. Wetland Type: **[Note: karst & other subterranean hydrological systems should also appear in the categories *Marine & coastal* and *Man-made*.]**

10. Outline map of site: **In the case of karst and other subterranean hydrological systems, the map should indicate clearly the boundaries of both surface and subterranean features of interest. Subterranean features should be represented by a two-dimensional projection onto the surface. Three-dimensional representations of subterranean features are not a requirement, but are welcomed if available.**

14. Physical features: A short description of the principal physical characteristics of the site, covering the following points where relevant:

    - **hydrogeomorphology (especially for karst and other subterranean hydrological systems)**

    In the case of karst and other subterranean hydrological systems, both surface and subterranean features should be described. Important elements to mention when describing subterranean sites include: temperature, humidity, light level, hydrogeological regime including water movements, and catchment area (if known).

16. Ecological features: **In the case of karst and other subterranean hydrological systems mention both surface and subterranean features of interest.**

19. Social and cultural values: An account (more detail can be given in sections 25-27 below) of the principal social values (e.g., tourism, outdoor recreation, education and scientific research, agricultural production, grazing, water supply **- give special attention to the role of karst and other subterranean hydrological systems in maintaining water supplies in otherwise dry landscapes -** fisheries production) and cultural values (e.g., historical associations, **traditional land-use practices**, religious significance**, landscape values, health values**).

20. Land tenure/ownership: **In the case of karst and other subterranean hydrological systems, refer to ownership of both surface and subterranean features.**

22. Adverse factors affecting the ecological character of the site: **In the case of karst and other subterranean hydrological systems, give special attention to factors outside the site which degrade water quality and quantity.**

27. Current recreation and tourism: **Consider all types of tourism, distinguishing between tourism which is compatible with conservation objectives and tourism which is not sustainable**

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Invasive species and wetlands

1. AWARE of the severe threat that alien species pose to the ecological character of wetlands, and to wetland species, terrestrial and marine, if they become invasive;

2. ACKNOWLEDGING that adequate control of invasive species is often expensive and eradication is usually impracticable once these species are established, and that prevention and early intervention are the most cost-effective techniques that can be employed against invasive species;

3. ACKNOWLEDGING the role that the accidental or deliberate movement and transport of alien species plays in the global spread of new invasive species;

4. RECALLING Resolution 5.6 on *Additional guidance for the implementation of the wise use concept* and Resolution 5.7 on *Guidelines for management planning for Ramsar sites and other wetlands*, which include references to control of the introduction of invasive species, measures to avoid accidental introductions, eradication of introduced species and damages for unlawful introductions;

5. NOTING Background Document No. 24 on *Invasive species and wetlands* presented at this Conference, which included definitions for alien and invasive species, the effects of invasive species on the ecological character and functions of wetlands, examples of organisms that can become invasive, methods of control, and solutions for combating invasive species;

6. ACKNOWLEDGING the Memorandum of Cooperation between the Ramsar Convention and the Convention on Biological Diversity (CBD), the Joint Ramsar-CBD Work Plan endorsed at the 4th CBD Conference of the Parties, and the obligation in the Convention on Biological Diversity to "prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species" (Article 8(h));

7. NOTING that the 4th Conference of the Parties to CBD adopted a number of relevant decisions on invasive species, including Decision IV/4 which called for the compilation of case studies on the impact and management of invasive species for inland waters, and Decision IV/5 which set out to achieve a better understanding of alien species and their impact on marine and coastal ecosystems;

8. RECOGNIZING that the CBD's COP4 requested its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to develop guiding principles for the prevention, introduction and mitigation of impacts of alien species and to report on those principles and any related work programme to the CBD's COP5;

9. NOTING the work of the Global Invasive Species Programme (GISP), coordinated by the Scientific Committee on Problems of the Environment (SCOPE), which is developing a global strategy and action plan and a set of practical tools to deal with invasive species, and the work of the IUCN-The World Conservation Union in preparing draft Guidelines for the Prevention of Biological Diversity Loss due to Biological Invasion;

10. APPLAUDING significant initiatives on invasive species being undertaken in a wide range of regions by Contracting Parties and partner organizations, including for example the U.S. Presidential Executive Order on Invasive Species (3 February 1999), the current project in the five Nordic Countries on invasive and alien species under the Nordic Council of Ministers, and the IUCN/Ramsar Invasive Species Awareness Programme for Africa; and

11. ALSO NOTING the outcomes of the workshop on invasive species at the 13th Session of the Global Biodiversity Forum, which immediately preceded this Conference;

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12. CALLS UPON Contracting Parties to wherever possible address the environmental, economic and social impact of invasive species on wetlands within their jurisdictions;

13. ALSO CALLS UPON Contracting Parties to take account of the methods of control and solutions for combating invasive species outlined in the special intervention on *Wetlands and invasive species* presented at this Conference for the management of invasive species (background document Ramsar COP7 DOC. 24);

14. INVITES Contracting Parties to provide the Ramsar Bureau with information on databases which exist for invasive species, information on invasive species which pose a threat to wetlands and wetland species, and information on the control and eradication of invasive wetland species;

15. DIRECTS the Ramsar Bureau to:

    a) advocate the high priority given by the Ramsar Convention in addressing invasive species in wetland ecosystems to the CBD, SCOPE's GISP, global trade and transport organizations and other relevant organizations and initiatives, to ensure that the impact on wetlands from invasive species is prominently addressed;
    b) bring this Resolution to the attention of other Convention secretariats and international organizations, to ensure cooperation with existing programmes and to initiate new partnerships;
    c) work with existing programmes in establishing a practical data system that identifies invasive species which pose a threat to wetlands and wetland species, and includes methods for and advice on the control and eradication of invasive wetland species; and
    d) prepare case studies where invasive species have adversely affected the ecological character and the social and economic benefits of wetlands, in particular Ramsar sites;

16. DIRECTS the Scientific and Technical Review Panel (STRP) to:

a) prepare wetland-specific guidelines for identifying, establishing priorities for action, and managing alien species which potentially pose a threat to wetlands and wetland species, in cooperation with the SBSTTA of CBD, SCOPE's GISP, and other programmes established under international conventions, and taking account of IUCN's draft Guidelines for the Prevention of Biological Diversity Loss due to Biological Invasion; and

b) consult with relevant parties to prepare, for the benefit of the Contracting Parties, guidance on legislation or other best practice management approaches that incorporate 'risk assessment', in order to minimise the introduction of new and environmentally dangerous alien species into a jurisdiction, and the movement or trade of such species within a jurisdiction;

17. INVITES Contracting Parties to make voluntary contributions to support the activities of the Ramsar Bureau and STRP outlined in this Resolution, noting that the implementation of this Resolution is subject to the availability of adequate financial and human resources;

18. URGES Contracting Parties to:

a) prepare, within their jurisdictions, an inventory of alien species in wetlands and to assess them so as to identify and prioritise those which pose a threat to wetlands and wetland species ('risk assessment'), and those which may be adequately controlled or eradicated;

b) establish programmes to target priority invasive species with a view to control or eradication, as well as to implement other related international programmes;

c) address, wherever possible in their actions, the environmental, economic and social impact of the movement and transport of alien species on the global spread of invasive wetland species;

d) review existing legal and institutional measures pursuant to Resolution VII.7 and, where necessary, to adopt legislation and programmes to prevent the introduction of new and environmentally dangerous alien species into their jurisdictions and the movement or trade of such species within their jurisdictions;

e) develop capacity for the identification of new and environmentally dangerous alien species (including those being tested for agricultural and horticultural use) and the promotion and enforcement of legislation and best practice management;

f) facilitate awareness of, and resource the identification and control of, new and environmentally dangerous alien species; and

g) collaborate with other Contracting Parties with a view to exchanging information and experience, increasing overall capacity to deal with wetland invasive species and promoting regional coordination of invasive species programmes.

"People and Wetlands: The Vital Link"
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Incentive measures to encourage the application of the wise use principle

1. RECALLING Article 3.1 of the Convention which states that Contracting Parties "*shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List* [of Wetlands of International Importance]*, and as far as possible the wise use of wetlands in their territory*";

2. FURTHER RECALLING Resolution 5.6 on *Additional guidance for the implementation of the wise use concept*, and in particular the references therein to removing tax benefits and subsidies which encourage wetland destruction and conversely, the introduction of incentives "*to encourage activities which are compatible with the maintenance of wetlands, and which promote and contribute to their conservation*";

3. NOTING that incentive measures form an element of the Joint Work Plan between the Ramsar Convention and the Convention on Biological Diversity (CBD) (Resolution VII.4) and that this was endorsed by Decision IV/15 of CBD's 4th Conference of the Parties (COP);

4. ALSO NOTING Decisions III/18 and IV/10a of CBD COP4 on incentive measures, and especially the recognition in the latter decision that "*incentive measures should be designed using an ecosystem approach and with the targeted resource management audience in mind*";

5. AGREEING with CBD Decision IV/10a when it recognises that "*economic valuation of biodiversity and biological resources is an important tool for well-targeted and calibrated economic incentive measures"*;

6. AFFIRMING the critical importance for the implementation of the Convention and its wise use principle of the design and implementation of measures that act as incentives for the conservation and wise use of wetlands, and of the identification and removal of incentives which undermine the conservation and wise use of wetlands;

7. NOTING WITH APPROVAL that CBD's Decision IV/10a on incentive measures encouraged collaboration among the Organisation for Economic Cooperation and Development (OECD), IUCN-The World Conservation Union, the Secretariat of the CBD, and other relevant organizations, to develop a background paper with the aim of developing guidance on this issue for consideration at CBD's COP5;

8. HAVING CONSIDERED the paper on incentive measures presented to Technical Session III of this Conference;

9. REALIZING the need for incentive measures to be considered as part of the policy and legislative instruments of Contracting Parties implementing the Convention and that this Conference has adopted guidance for Parties on both of these subjects (Resolutions VII.6 and VII.7); and

10. RECOGNIZING the importance of incentive measures for promoting the sustainable use of wetlands among various stakeholders, notably local communities and the private sector, as encouraged by the *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8);

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11. URGES Contracting 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;

12. FURTHER URGES Contracting Parties more specifically to ensure that incentive measures are taken into consideration when applying the *Guidelines for developing and implementing National Wetland Policies* (Resolution VII.6) and the *Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands* (Resolution VII.7);

13. CALLS UPON Contracting Parties, non-governmental organizations, donor agencies and others, in their application of the *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8), to give special consideration to the introduction of incentive measures designed to encourage the wise use of wetlands, and to identify and remove perverse incentives where they exist;

14. FURTHER CALLS UPON Contracting Parties and others to share their experiences and lessons learned with respect to incentive measures and perverse incentives relating to wetlands, biodiversity conservation, and sustainable use of natural resources generally, by providing these to the Ramsar Bureau for appropriate distribution and to be made available through the Wise Use Resource Centre of the Convention's Web site;

15. REQUESTS the Scientific and Technical Review Panel (STRP) and the Ramsar Bureau, recognizing that financial resources will be necessary for these purposes, to work in cooperation with the relevant bodies of the CBD and the Convention on Migratory Species, OECD, the International Association for Impact Assessment, and IUCN, and with the Contracting Parties and other relevant organizations, to: a) review existing guidelines and available information on incentive measures in order to prepare an Internet-based resource kit, including a catalogue of incentives and case studies; and b) explore the use of impact assessments as tools for identifying opportunities for implementing incentive measures;

16. DIRECTS the STRP and the Ramsar Bureau to prepare a report for Ramsar COP8 on progress in the design, implementation, monitoring and assessment of incentive measures and the identification and removal of perverse incentives, containing recommendations for specific actions to be taken by the Contracting Parties, governments, and other relevant organizations, as human and financial resources allow; and

17. DECIDES that information on incentive measures taken by the Contracting Parties should be included in National Reports for analysis and reporting by the Ramsar Bureau.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

The Ramsar Convention and impact assessment: strategic, environmental and social

1. RECALLING Article 3.2 of the Convention which states that each Contracting Party "*shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List [of Wetlands of International Importance] has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference*", and also Article 3.1 which states that Contracting Parties "*shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory*";

2. FURTHER RECALLING Recommendation 6.2 which "*calls on the Contracting Parties to integrate environmental considerations in relation to wetlands into planning decisions in a clear and publicly transparent way*";

3. AWARE that Action 2.5.1 of the Strategic Plan 1997-2002 sets out to "*expand the Additional Guidance on Wise Use by preparing, for a technical session at the 7th COP, the results of a review of environmental appraisal guidelines and examples of current best practice EIA*";

4. ALSO AWARE that Action 2.5.4 of the Strategic Plan 1997-2002 urges Contracting Parties to "*take account of Integrated Environmental Management and Strategic Environmental Assessment (at local, provincial and catchment/river basin or coastal zone levels) when assessing impacts of development proposals or changes in land/water use*";

5. RECOGNIZING Operational Objective 2.4 of the Strategic Plan 1997-2002 which urges Contracting Parties "*to provide economic evaluations of the benefits and functions of wetlands for environmental planning processes*" and Recommendation 6.10 which notes "*that it is vital that all wetland economic values be identified, measured and reported upon to increase national and international awareness of the need for and benefits of wetland conservation*;

6. REAFFIRMING the role of impact assessment and economic valuation as key tools for assisting the Contracting Parties in their efforts to achieve the objectives of the Convention, especially with respect to the management of sites included in the List of Wetlands of International Importance (the Ramsar List) and in the implementation of the wise use principle;

7. NOTING WITH APPROVAL that the issues of impact assessment and economic valuation form elements of the Joint Work Plan between the Ramsar Convention and the Convention on Biological Diversity (CBD) (Resolution VII.4) and that this was endorsed by Decision IV/15 of CBD's 4th Conference of the Parties;

8. ALSO NOTING WITH APPROVAL that CBD's Decision IV/10c on impact assessment and minimizing adverse effects specifically encouraged collaboration between the Convention on Biological Diversity, the Ramsar Convention, the Convention on Migratory Species (CMS), the International Association for Impact Assessment (IAIA), and IUCN-The World Conservation Union on this matter; and

9. HAVING CONSIDERED the paper on *The Ramsar Convention and impact assessment* presented to Technical Session IV of this Conference, and in particular its advice regarding integrated approaches to impact assessment at the policy, plan, programme and project levels;

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10. CALLS UPON Contracting Parties to reinforce and strengthen their efforts to ensure that any projects, plans, programmes and policies with the potential to alter the ecological character of wetlands in the Ramsar List, or impact negatively on other wetlands within their territories, are subjected to rigorous impact assessment procedures and to formalise such procedures under policy, legal, institutional and organizational arrangements;

11. ENCOURAGES Contracting 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;

12. FURTHER ENCOURAGES Contracting Parties to ensure that impact assessment processes relating to wetlands are undertaken in a transparent and participatory manner which includes local stakeholders, as encouraged through the *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8);

13. ALSO ENCOURAGES Contracting Parties, as part of their ongoing monitoring and impact assessment practices for sites in the Ramsar List, to apply the *Framework for designing a wetland monitoring programme* (Resolution VI.1) and the *Wetland Risk Assessment Framework* (Resolution VII.10);

14. ALSO CALLS UPON Contracting Parties with shared wetlands and river basins to seek cooperative approaches to impact assessment with neighbouring countries as encouraged by the *Guidelines for the integration of wetland conservation and wise use into river basin management* (Resolution VII.18) and the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19);

15. REQUESTS the Bureau to continue to work with the Secretariats of the CBD and the CMS as well as with OECD, IAIA, IUCN, and other relevant partners in exploring the use of impact assessments as tools for developing and implementing incentive measures for conserving and wisely using wetland ecosystems; and

16. FURTHER REQUESTS the Scientific and Technical Review Panel and the Ramsar Bureau to work in cooperation with their counterparts from the CBD and other relevant conventions and expert organizations, to review existing guidelines and available

information on environmental impact assessment and economic valuation of wetlands, in accordance with the high priority given during the last triennium (Recommendations 6.2 and 6.10). This could be reported as an Internet-based resource kit that examines the use of environmental impact assessment and economic valuation as tools for identifying opportunities to apply the wise use principle.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Restoration as an element of national planning for wetland conservation and wise use

1. RECALLING Recommendation 4.1 which urged Contracting Parties and the Standing Committee to take a range of actions to promote the restoration of wetlands;

2. RECALLING ALSO Recommendation 6.15 which called on Contracting Parties to "*integrate wetland restoration into their national nature conservation, land and water management policies*";

3. NOTING Operational Objective 2.6 of the Strategic Plan 1997-2002 which, in particular, urges Contracting Parties to identify wetlands in need of restoration and rehabilitation, provide and implement methodologies for this purpose, and establish restoration/rehabilitation programmes, especially in association with major river systems or areas of high nature conservation value;

4. EXPRESSING GRATITUDE to the authors of the paper presented and considered by Technical Session II of this Conference entitled *Restoration as an element of national planning for wetland conservation and wise use*;

5. REITERATING the view expressed in Recommendation 4.1, and further emphasised by the above-mentionedpaper, that although restoration or creation of wetlands cannot replace the loss or degradation of natural wetlands, a national programme of wetland restoration, pursued in parallel with wetland protection, can provide significant additional benefits for both people and wildlife, when the restoration is ecologically, economically and socially sustainable;

6. NOTING WITH APPROVAL that in the National Reports submitted for this Conference, 76 Contracting Parties advised that wetland restoration activities are occurring in their countries, but EXPRESSING CONCERN that the level of this activity in most Contracting Parties is not high and that few Parties indicated that the promotion of restoration is part of their National Wetland Policies and related policy instruments;

7. RECOGNISING that capacity building and additional human and financial resources may be required in order to foster the development of restoration and rehabilitation initiatives, but also AWARE that in many countries it is local people/stakeholders who are taking the lead with such initiatives, in recognition of the vital functions, services and benefits wetlands provide;

8. CONSCIOUS that in Technical Session I of this Conference on Ramsar and Water, restoration of wetlands was identified as a priority in the papers presenting guidelines for integrating wetlands conservation and wise use into river basin management, on wetlands as elements of water policy formulation, and on defining Ramsar's role in response to the global water crisis; and

9. REALIZING that through a number of Resolutions, this Conference has adopted guidance for the Contracting Parties on wetland policy formulation (Resolution VII.6), reviewing laws and institutions (Resolution VII.7), involving local communities and indigenous people in wetland management (Resolution VII.8), promoting communication, education and awareness related to wetlands and waterways (Resolution VII.9), integrating wetland conservation and wise use into river basin management (Resolution VII.18), and priorities for wetland inventory (Resolution VII.20), all of which assist with the promotion of wetland restoration in appropriate ways;

THE CONFERENCE OF THE CONTRACTING PARTIES

10. CALLS UPON all Contracting Parties to recognise that although restoration or creation of wetlands cannot replace the loss of natural wetlands, and that avoiding such loss must be a first priority, a national programme of wetland restoration, pursued in parallel with wetland protection, can provide significant additional benefits for both people and wildlife, when the restoration is ecologically, economically and socially sustainable;

11. URGES Contracting Parties to produce information about wetland losses, including an assessment of the lost processes, functions, composition and values of wetland areas. This information should include data about the restoration potential of these sites and the full benefits of restoration, including identification, at all appropriate levels and using standardised protocols for data gathering and handling as requested in Resolution VII.20, of sites that are a priority for restoring for the benefit of people and the natural environment;

12. ALSO CALLS UPON all Contracting Parties, in the context of approaches which seek to avoid loss of wetlands and of the Joint Work Plan between the Ramsar Convention and the Convention on Biological Diversity, to review, and as necessary amend, their approaches to promoting wetland restoration. In doing so, particular priority should be given to promoting sustainable restoration as part of policy frameworks which promote an ecosystem approach, communication, education and capacity building programmes and support for local stakeholder actions, taking account of traditional norms and the specific role of women;

13. FURTHER URGES Contracting Parties when reviewing their approaches to restoration to examine in detail and address the areas of legislation (Resolution VII.7), incentives for wetland conservation (Resolution VII.15), impact assessment (Resolution VII.16) and transboundary action at the catchment level (Resolution VII.19);

14. URGES Contracting Parties to implement and evaluate projects and programmes as a means of promoting ecologically, economically and socially sustainable restoration of degraded sites, giving full consideration to the elements identified in Annex 1 to this Resolution;

15. REQUESTS Contracting Parties to identify constraints in and solutions for implementing ecologically, economically and socially sustainable wetland restoration, and based on this to develop demonstration projects and targeted technical exchange programmes, reporting on this in their National Reports to Ramsar COP8; and

16. REQUESTS the Ramsar Bureau, in consultation with the Scientific and Technical Review Panel, to identify sources of expertise on specific aspects of wetland restoration and rehabilitation (drawing on established networks such as IUCN's Commission on Ecosystem Management, DIVERSITAS, Wetlands International's Wetland Restoration Specialist Group and others), to further develop tools and guidelines, and make this available to the Contracting Parties.

Annex

Wetland restoration and rehabilitation

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?

Resolution VII.18

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

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

1. RECALLING Operational Objective 2.2 of the Strategic Plan 1997-2002, which urges Contracting Parties "t*o integrate conservation and wise use of wetlands . . . into national, provincial and local planning and decision making on land use, groundwater management, catchment/river basin and coastal zone planning, and all other environmental management";*

2. FURTHER RECALLING Resolution VI.23 on *Ramsar and Water* which calls on Contracting Parties, in promoting the integration of water resource management and wetland conservation, to undertake a range of actions including the establishment of hydrological monitoring networks on wetlands, studies of traditional water management systems and economic valuation methods, to involve National Ramsar Committees and local stakeholders in river basin management, to support multi-disciplinary training, and to work in partnership with water-related organizations;

3. AWARE that wetlands, because of their ecological and hydrological functions, are an intrinsic part of the overall water resource system and should be managed as a component of such, as well as being rich centres of biological diversity and related productivity; and contribute as such to the economic, ecological and social security of local people and other major groups;

4. WELCOMING the Memorandum of Cooperation with the Convention on Biological Diversity (CBD) and the associated Joint Work Plan through which the role of the Ramsar Convention as the lead partner on actions directed at the conservation and wise use of wetlands, and particularly inland water ecosystems, is to be pursued (Resolution VII.4);

5. ALSO AWARE of the increasing demands being placed upon freshwater resources in many parts of the world, as presented to this Conference through the Technical Session I presentation entitled *Defining Ramsar's role in the response to the global water crisis*;

6. NOTING the importance placed on freshwater resources in the United Nations Special Session of the General Assembly to Review and Appraise the Implementation of Agenda 21 (June 1997), and the subsequent Commission on Sustainable Development meeting in May 1998, which as part of its report relating to Strategic Approaches to Freshwater Management recommended support for implementation of the Ramsar Convention;

7. NOTING ALSO the current initiatives of the World Commission on Dams as well as those activities of the World Water Council, the Global Water Partnership, and other water sector-related organizations designed to promote integrated water resource management;

8. RECOGNIZING that through Technical Session I, this Conference has considered and discussed in detail the *Guidelines for integrating wetland conservation and wise use into river basin management*;

9. REALIZING that this Conference, through a number of related decisions, has adopted guidance for the Contracting Parties on wetland policy formulation (Resolution VII.6), reviewing laws and institutions (Resolution VII.7), involving local communities and indigenous people in wetland management (Resolution VII.8), promoting communication, education and public awareness related to wetlands and waterways (Resolution VII.9), designation of karst and other subterranean hydrological systems (Resolution VII.13), incentives (Resolution VII.15), impact assessment (Resolution VII.16), wetland restoration as part of national planning (Resolution VII.17) and international cooperation under the Ramsar Convention (Resolution VII.19), of all which are closely related to and serve to inform the more generic subject of integrating wetlands into river basin management; and

10. GRATEFUL to those who contributed their information and other experiences to assist the authors, the Global Environment Network, with the preparation of the annexed Guidelines and the associated case studies and lessons learned;

THE CONFERENCE OF THE CONTRACTING PARTIES

11. RECOMMENDS the *Guidelines for integrating wetland conservation and wise use into river basin management* as annexed to this Resolution and URGES all Contracting Parties to give priority to their application, adapting them as necessary to suit national situations;

12. CALLS UPON the Contracting Parties to reinforce and increase their efforts to implement Resolution VI.23 and Operational Objective 2.2 of the Strategic Plan 1997-2002 and to do so through implementing the annexed Guidelines;

13. FURTHER URGES Contracting Parties, when implementing the annexed Guidelines, to take account of, and apply through integrated approaches, the guidance on related issues identified above and as adopted by this Conference;

14. DIRECTS the Ramsar Bureau, as funds and human resources allow, to make these and the associated guidelines adopted by this Conference available to the secretariats, expert and technical bodies, relevant regional institutions, river basin authorities and focal points of all other relevant environment conventions as well as interested parties and organizations, and, in particular, to those bodies identified above with a recognized direct interest in water management;

15 FURTHER DIRECTS the Ramsar Bureau and Scientific and Technical Review Panel (STRP), subject to the availability of budgetary resources, to follow and participate actively in the programme of the World Commission on Dams (WCD), providing input on themes of relevance to Contracting Parties, and to report back to Ramsar COP8 concerning the findings of WCD and their implications for the future;

16. ENCOURAGES in particular those Contracting Parties which are also signatories to the Convention on Biological Diversity to note and support the partnership approach being taken between the Conventions in the further development of tools in the areas of

incentives (Resolution VII.15) and impact assessment (Resolution VII.16), which are key elements of the annexed Guidelines;

17. INVITES those Contracting Parties which share river basins to pursue, as appropriate, the application of the annexed Guidelines in a cooperative way with their neighbouring States in accordance with Article 5 of the Convention and the *Guidelines for international cooperation under the Convention* (Resolution VII.19);

18. COMMENDS these Guidelines for consideration by all multilateral and bilateral donors to assist and guide their planning, project assessments and decision-making in terms of integrated water resource management, taking into account the special circumstances and constraints of the concerned countries;

19. INSTRUCTS the STRP, as funds and human resources allow, to review the current state of knowledge in the area of allocation and management of water to maintain wetland ecosystem functions, and to report to Ramsar COP8 on the findings, and if possible to provide guidance for the Contracting Parties on this subject;

20. FURTHER ENCOURAGES Contracting Parties and other interested parties to develop pilot activities or projects to promote and implement the guidelines in their countries, and to report to Ramsar COP8 and other relevant fora (such as CBD) on the successes achieved and lessons learned from these activities.

Annex

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

Contents

Introduction
Institutional frameworks
Assessment and enhancement of the role of wetlands in water management
Minimising the impacts of land use and development projects on wetlands and their biodiversity
Maintenance of natural water regimes to maintain wetlands
International cooperation

Introduction

1. Wetlands perform a host of ecological and hydrological functions that benefit humankind. Arguably some of the most important functions of wetlands are their roles in water supply, water purification and flood control. Wetlands also perform many other important socio-economic functions, such as provision of habitat for fisheries and forestry resources, and are critical for the conservation of biological diversity.

2. River basins or river catchments (the land area between the source and the mouth of a river including all of the lands that drain into the river) and coastal and marine systems influenced by catchment discharges, are important geographical units for considering the management of wetlands and water resources. Rapid and unsustainable development of wetlands, and the river basins in which they sit, has led to the disruption of natural hydrological cycles. In many cases this has resulted in greater frequency and severity of flooding, drought and pollution. The degradation and loss of wetlands and their biodiversity imposes major economic and social losses and costs to the human populations of these river basins. Thus, appropriate protection and allocation of water to wetlands is essential to enable these ecosystems to survive and continue to provide important goods and services to local communities.

3. In the coming millenium, demands on water resources will continue to increase, as will the levels of pollutants. In order to achieve the goal of sustainable utilisation of freshwater resources, new approaches to water and river basin management are urgently required. In the past the water resources and wetlands have tended to be the responsibility of separate sectoral agencies, frequently with very different objectives and modes of operation. As a result there have been, and continue to be, regular conflicts over water resource use and river basin management. Regrettably, in these considerations wetlands have not always been given the priority they deserve based on the important functions they perform in contributing to the maintenance of healthy and productive river systems.

4. Considering the important roles that wetlands can play in river management, the integration of wetland conservation and wise use into river basin management, as promoted by the Convention on Wetlands (Ramsar, Iran, 1971), is essential in order to maximise and sustain the benefits they together provide to human populations.

Purpose of these guidelines

5. These guidelines were conceived because, though the need to integrate wetlands into river basin management has been recognised by many governments and global institutions, no clear guidance on how to do so has been prescribed under the Ramsar Convention on Wetlands to this point. Therefore, these guidelines are intended to assist the Contracting Parties with pursuing this goal.

Guidance given by the Convention text and previous decisions of the Conference of the Contracting Parties

6. The critical linkage between wetlands, water and river basin management is emphasized in the text of the Convention on Wetlands and in the decisions of the Contracting Parties to the Convention at the triennial conferences. Notably the second paragraph of the Preamble of the Convention text states: "*Considering the fundamental ecological functions of wetlands as regulators of water regimes*", and the 6th Conference of the Contracting Parties (COP6) confirmed through Resolution VI.23 on Ramsar and Water that Contracting Parties "*RECOGNIZE the important hydrological functions of wetlands, including groundwater recharge, water quality improvement and flood alleviation, and the inextricable link between water resources and wetlands, and REALIZE the need for planning at the river basin scale which involves integration of water resources management and wetland conservation.*"

7. Resolution VI.23 further calls upon Contracting Parties, in promoting the integration of water resource management and wetland conservation, to undertake a range of actions (including the establishment of hydrological monitoring networks on wetlands, studies of traditional water management systems and economic valuation methods), to involve National Ramsar Committees and local stakeholders in river basin management, to support multidisciplinary training, and to work in partnership with water-related organizations.

8. Operational Objective 2.2 of the Strategic Plan 1997-2002 approved at COP6 urges Parties "*to integrate conservation and wise use of wetlands . . . into national, provincial and local planning and decision making on land use, groundwater management, catchment/river basin and coastal zone planning and all other environmental management*".

Institutional frameworks

Integrated river basin management

9. Integrated water resources management is based on the concept of water being an integral part of an ecosystem, a natural resource and a social and economic good, whose quantity and quality determine the nature of its use (Agenda 21, United Nations, 1992). A water source that is reliable, in terms both of its quantity and its quality, is a prerequisite for the survival of human civilization and socio-economic development. Water scarcity, gradual deterioration, aggravated pollution and infrastructure development has increasingly created conflicts over the different uses of this resource. The river basin management approach is an example of an incentive-based participatory mechanism for solving conflicts and allocating water between competing users, including natural ecosystems.

10. A critical requirement for integrated river basin management is the introduction of land use and water planning and management mechanisms which focus at the river basin scale. There is also a need to include consideration of the ecological requirements of marine and coastal systems that are influenced by catchment discharges. There are many steps involved in promoting the integrated approach of water resources management. One of the key issues identified is the division of management responsibilities for one river basin between different administrative authorities, resulting in fragmented approaches to water resources planning and management. It is important to realise that water resource planning and management is a multidisciplinary process and therefore has to be promoted as a collaborative framework among all the relevant agencies operating nationally and those involved within the river basin itself, as well as local communities.

11. Another key issue is the lack of awareness of the cross-sectoral nature of water problems and the need for a new development paradigm towards integrating the technical, economic, environmental, social and legal aspects of water management. The development of administrative units in water resource management has to coincide with river basins' boundaries instead of political boundaries. The lack, or inadequacy, of water legislation and policies is another stumbling block to integrated management of river basin and optimal use of water resources.

12. The following guidelines should be noted:

Section A

Guidelines for Contracting Parties relating to integrated river basin management

A1. Identify the key barriers to integrated river basin management and promotion of land and water use planning/management within a river basin and work to overcome them.

A2. Develop consultative processes which involve the various sectors and institutions responsible for water management, environmental protection and agriculture (at least) and a basin-wide plan for the conservation, utilisation and management of the water resources.

A3. Integrate wetland conservation into river basin management to benefit management goals, such as water supply, flood management, pollution mitigation and the conservation of biological diversity.

A4. Promote the protection and restoration of wetland areas, and their biodiversity, within river basins.

A5. Develop appropriate and socially acceptable cost-sharing mechanisms to cover costs involved in the management of river basins.

A6. Promote the establishment of appropriate mechanisms to bring together all major groups involved in river basin management such as government, municipalities, water regulatory bodies, academic institutions, industries, farmers, local communities, NGOs, etc., to contribute towards the management of the basin.

A.7 Promote appropriate education and public awareness schemes as effective tools for integrated management of river basins. (See the *Convention's Outreach Programme*, Resolution VII.9.)

Development and strengthening of policy and legislation for integrated water resources management

13. The shift towards integrated water resources management on a river basin scale requires the support of appropriate legislation and policy instruments, including economic instruments such as water pricing policies (e.g. "user pays" and "polluter pays"). Contracting Parties need to put in place appropriate national water policies and legislation to enable and facilitate the planning and integrated management of water resources. These policies need to be harmonised with related policies where they exist such as National Wetlands Policies, National Environment Plans, National Biodiversity Strategies, international agreements and legislative frameworks.

14. In view of the fact that adequate policies at national and sub-national levels are essential to guide the proper development, conservation, administration and use of river basins, it is imperative that all Contracting Parties formulate effective overall policies on the following:

    14.1 Allocation of water for the maintenance of all ecosystems including marine and coastal ecosystems;
    14.2 Issuance of permits for water abstraction and use;
    14.3 Domestic and industrial water use, treatment of effluent and the safe discharge of effluent;
    14.4 Agricultural water use, mitigation of effects of large water management structures, return of water, limitations of pesticide and other agro-chemical use;
    14.5 Determination of water quality standards for use for various purposes;
    14.6 Rules and regulations regarding abstraction and use of groundwater;
    14.7 Tariff policies for drinking water supply, agriculture, industrial and other water uses;
    14.8 Land and water conservation;
    14.9 Integration of water and wetland conservation within the national socio-economic development agenda;
    14.10 Invasive species which have an impact on water.

15. The following guidelines should be noted:

Section B

Guidelines for Contracting Parties on the development and strengthening of policy and legislation for integrated water resources management

B1. Incorporate wetland management issues into existing water or river basin management policies and also incorporate water resource management issues into National Wetland Policies and similar instruments (see Resolution VII.6).

B2. Review existing legislation and, as appropriate, develop new legislation to facilitate the implementation of key policy issues such as the establishment of River Boards and Commissions; introduction of economic incentives and disincentives, regulation of activities which may negatively affect water management (see Resolution VII.7).

B3. Develop a comprehensive National Water Policy (Resolution VII.6) or National River Basin Management Policy to regulate activities within river basins and integrate wetland management into the policy and local strategies/action plans.

B4. Recognising that socio-economic development is often critically dependent on the protection of aquatic ecosystems, encourage different sectors (such as conservation, water, economic development) to collaborate in allocating or securing sufficient resources to implement policies and legislation for integrated water resources management.

B5. Develop appropriate incentive measures (Resolution VII.15), such as demand management and water pricing strategies to promote water conservation and more efficient and socially acceptable allocation of water resources.

Establishment of river basin management authorities and strengthening of institutional capacity

16. The institutional structures in place for land and water use should permit the integrated management of river basins as single units. Fundamental changes in the administrative structure of water resource management can be achieved through a step by step process. The first step is to establish a process of cooperation and collaboration between the agencies responsible for water resources management, environmental protection, agriculture, etc. Subsequently, representatives of these agencies assist in the establishment of a coordinating authority that assumes responsibility for managing water resources and the wetlands of the river basin.

17. The following guidelines should be noted:

Section C

Guidelines for Contracting Parties for the establishment of river basin management authorities and strengthening of institutional capacity

C1. Set standards and objectives to be achieved (such as water quality and quantity, physical efficiencies in water use and healthy wetland ecosystems within a river basin) and determine the options and costs of achieving these objectives.

C2. Make multi-stakeholder river basin management authorities responsible for preparing river basin management plans;

C3. Where appropriate, the river basin management authorities should consider the development of cost sharing formulas (such as beneficiaries pay, river basin resident levies, government subsidies, environmental costs of degradation/ "impacter pays", etc.) to raise the funds needed for integrated river basin management, or alternatively seek these resources from the development assistance community;

C4. Develop mechanisms to facilitate the transfer of resources from downstream beneficiaries to the protection and management of upper catchments and other critical areas;

C5. Provide training for water/wetland managers at all levels to understand and implement the concepts of integrated water resource and river basin management, including the importance of wetlands;

C6. Provide adequate financial resources to ensure effective operation of organizations charged with planning and management of water resources, river basin management and wetland conservation and, as appropriate, seek resources from alternative sources, such as debt swap for nature arrangements and the establishment of national or local trust funds;

C7. Strengthen and maintain the capabilities of local institutions (universities, research institutions and water management agencies) to undertake comprehensive water demand assessments which include ecological water demands;

C8. Strengthen the protection of the upper catchment and other critical areas elsewhere in the river basin through their inclusion in protected area systems or development of special management strategies;

C9. Promote the inclusion of staff within river basin management authorities which have expertise in the ecological functions of wetlands.

Involvement of stakeholders, community participation and public awareness

18. An important element within the concept of integrated river basin management is that planning and management institutions work with and for the entire community of water users in the basin, including wetland wildlife and users, as well as relevant stakeholders outside the river basin. In order to identify the needs and concerns of all water users, public participation in the planning and management of water resources is an important goal. (Refer also to Resolution VII.8.)

19. Until relatively recently there was little consultation on river basin and water resource planning in many countries. A management shift has taken place with a greater role being provided for civil society, with recent experience showing that effective collaboration between agencies and local people increases the chance of success in achieving effective river basin plans. Early consultations with the public can also help identify previously unknown uses and values of resources in the basin and help determine the relative importance of different values.

20. The local community can play an important role in managing and monitoring wetlands and rivers. Several programmes to involve community groups in wetland and river basin management already exist. For example, the Global Rivers Environmental Education Network (GREEN) promotes an action-oriented approach to education based on a successful watershed (river basin) education model. It works closely with business, government, community and educational organizations across the United States and Canada and with GREEN country Coordinators in 135 countries around the globe. The network aims to promote and improve the levels of public knowledge through a global education network that promotes sustainable management of river basins. It also supports community-based education through regional partnership activities. Refer to the Convention's Outreach Programme (Resolution VII.9) for further consideration of this approach.

21. The following guidelines should be noted:

Section D

Guidelines for Contracting Parties relating to the involvement of stakeholders, community participation and public awareness (Refer also to Resolutions VII.8 and VII.9)

D1. Establish mechanisms to identify and involve stakeholders in planning and management of river basins and their wetlands, including a review of the land tenure arrangements within the river basin.

D2. Facilitate the active participation of stakeholders, responding to their particular needs, and sharing of authority and responsibility for resource management according to arrangements that are agreed by all parties.

D3. Provide fora for open discussion on river basin management between water management agencies and stakeholders, particularly local communities, to identify the issues, needs and problems of the community.

D4. Document and promote sustainable wetland and river basin management practices developed through traditional knowledge and skills.

D5. Support capacity building of community-based organizations and NGOs to develop skills for monitoring or management of resources within river basins, such as through the Global Rivers Environmental Education Network (GREEN) model and programme.

D6. Develop and implement management plans which take into account the goals and aspirations of the local stakeholders, including the consideration of fair and equitable sharing of benefits, as the success of such plans depends on the effectiveness of public participation and support.

D7. Identify, design and implement community-based demonstration projects and provide additional economic incentives to the local communities.

D8. Design and implement communication, awareness and education programmes on the importance of wetland conservation to support water resources management, consistent with the guidelines set out in the *Convention's Outreach Programme* (Resolution VII.9).

D9. Develop awareness campaigns to minimise those activities leading to the degradation of river systems, such as excessive and incorrect use of inappropriate pesticides and fertilisers, poor sanitation, drainage of wetlands, and clearance of forests in the catchment.

Assessment and enhancement of the role of wetlands in water management

Hydrological functions

22. As indicated previously, wetlands perform a host of ecological and hydrological functions. These include mitigating the impacts of floods, reducing erosion, recharging groundwater and maintaining/improving water quality. As such, wetlands can be managed to secure a range of objectives in water resources management, such as to maintain water supply and quality, to recharge groundwaters, to reduce erosion, and to protect the human population from floods.

Assessment of functions

23. In order to maintain or enhance the role of wetlands in water resource management, it is necessary first to identify and assess the benefits which a particular wetland provides. Three steps are needed in this process:

    23.1 inventory and description of the wetlands (refer to Resolution VII.20);
    23.2 identification of the particular attributes and functions that may play a role in water management;
    23.3 quantification of such functions.

24. While it may be desirable to have long-term and detailed studies, it is often more appropriate to use rapid assessment techniques to determine the relative importance and functions of wetlands within a river basin. Initial functional assessment is a process whereby the general physical and biological characteristics of wetlands are used to predict which functions are most likely to be present at a site. This assessment should be carried out together with an initial inventory of wetlands. The assessment is neither definitive nor quantitative. Initial assessments put wetlands on relative scales with respect to particular functions. Initial functional assessment is necessary to estimate the capacity and opportunity of wetlands to meet specific needs. These evaluation assessments can be conducted on wetlands to identify their potential roles in flood control, improving water quality, sediment retention and input into ground water supply.

25. Examples of such functional assessment techniques include The Wetland Evaluation Technique (WET) and Functional Capacity Index, both used by the US Army Corps of Engineers, and the Functional Analysis of European Wetland Ecosystems (FAEWE) method developed in Europe. These techniques incorporate a number of elements including:

    25.1 establishment of a database from desk and field studies;
    25.2 functional assessment procedures including quantitative and qualitative assessment, assessment of susceptibility to impacts and economic evaluation of functions; and
    25.3 modeling and monitoring procedures.

Enhancement of functions

26. Once the functions have been determined, it is possible to assess the role that the wetlands could play in the management of water resources within a river basin. Numerous studies throughout the world have shown that it is almost always more cost- effective to maintain natural wetlands than to drain or convert the wetlands to other (often marginal) uses, and then to try to provide the same services through structural control measures such as dams, embankments, water treatment facilities, etc. In many cases it has also been found cost-effective to restore or even create wetlands to provide these functions rather than create expensive engineering structures.

27. The following guidelines should be noted:

Section E

Guidelines for Contracting Parties relating to assessment and enhancement of the role of wetlands for water management

E1. Information on functional and biodiversity assessment methodologies and the means for their integration for wetland management should be compiled by the Scientific and Technical Review Panel (STRP) of the Convention and disseminated to Contracting Parties, for their adaptation to local situations.

E2. Undertake studies to identify the functions and benefits to water management which are provided by the wetlands within each river basin. Based on these findings, Contracting Parties need to urgently protect, through appropriate actions, the remaining wetland areas which contribute to water resource management.

E3. Consider the rehabilitation or restoration of degraded wetlands, or the creation of additional constructed wetlands within river basins, to provide services related to water management (refer to Resolution VII.17).

E4. Ensure adequate consideration in river management programmes of non-structural flood control methods which take advantage of the natural functions of wetlands (for example, restoring floodplain wetlands or creating flood corridors) to supplement or replace existing flood control infrastructure.

Identification of current and future supply and demand for water

28. An essential component of river basin management is knowledge of both current and future supply and demand upon water resources in a river basin, taking into consideration the possible impacts of climate change. Current and future assessments of the resource need to focus on the human uses of water (such as irrigation, hydro- electricity and domestic or industrial water supply) as well as the ecological needs for water within different parts of a river basin. In this respect, water demands should not only be defined in terms of water quantity but also water quality. Ecological water demands are less obvious and more difficult to quantify and consequently have often been ignored or underestimated in terms of water demand. Ignoring such requirements may lead to major environmental and social problems such as collapse of fisheries or downstream saline intrusion. It is also important to recognise that the greatest damage to the environment may occur during extreme events rather than the average situation.

29. Socio-economic systems are constantly changing and therefore it is often necessary to develop a range of future demand scenarios and develop flexible sustainable use strategies which can be adapted to a range of circumstances. Linked to the assessment of water demands is the identification and resolution of the significant water-related problems arising from the demand patterns identified in the scenarios. These problems should not be restricted to issues related to human activities but should also include ecological problems such as adaptation to reduced water supply or quality within certain ecosystems.

30. Water demand is mainly determined by the economic incentives for water and wetland use. Provision of incentives for practising environmentally sustainable water use can minimise the impacts on wetland areas. It is critically important to impose water prices that reflect the true cost of supplying water which will encourage the optimisation of water use,

ensuring that in so doing there is recognition of the economic value of other services from wetlands. Within a sectoral policy context, incentives for sustainable use of freshwater resources need to be provided. Equally, environmentally unsound or inequitable incentives which are encouraging practices that are unsustainable need to be identified and removed. (Refer to Resolution VII.15.)

31. The following guidelines should be noted:

Section F

Guidelines for Contracting Parties relating to the identification of current and future supply and demand for water

F1. Undertake assessments of current and potential future water supply and demand for water resources within the river basin to meet both ecological and human requirements and identify areas of potential shortage or conflict.

F2. Undertake assessments to establish the economic and social costs which are likely to result if the ecological water demands are not met.

F3. Based on the above assessments, develop mechanisms to solve problems and conflicts over water quantity and quality at both national and river basin levels within the country.

F4. Develop appropriate demand management and water pricing strategies to assist in sustaining the ecological functions and values of water resources and wetlands.

F5. Review relevant incentive/perverse incentive measures and consider removing those measures which lead to destruction/degradation of wetlands; introduce or enhance measures which will encourage restoration and wise use of wetlands. (Refer to Resolutions VII.15 and VII.17.)

Minimising the impacts of land use and water development projects on wetlands and their biodiversity

Impacts of land use projects

32. Almost all land uses projects through their use of water, or their production of pollutants, will have some impact on water quantity and quality in the river basin, and hence have an impact on riverine wetlands. Water development projects also have a significant impact and these are dealt with in the following section.

33. The land uses which can impact most significantly on rivers and wetlands are forestry, agriculture, mining, industry and urbanisation. Inappropriate forestry practices, especially in the upper watershed, can lead to increased soil erosion and reduced water retention capacity. Agricultural activities can also cause significant levels of pollutants from agro-chemicals and agricultural wastes. Upland agriculture through land clearing and subsequent operation can have a major negative impact on water quality and also lead to significant changes in flood and dry season flows. Lowland agriculture can lead to the drainage or

conversion of floodplain wetlands leading to loss of biodiversity and natural functions and benefits. In many developing countries, irrigation is the main justification for abstracting water from rivers.

34. The impact of mining and industrial activities is mainly through the release of pollutants, some of which may be highly toxic (for example, mercury). In addition, industrial activities or mining can instantly jeopardise entire river basins and all the associated wetlands and biodiversity through accidental spills. Urban areas have impacts through encroachment on wetlands, either directly or through associated infrastructure such as roads, ports, water supply and flood control. In addition the human populations they support lead to increased demands on resources and direct pollution.

Assessing and minimising impacts

35. The impact of existing land uses on river systems and associated wetlands needs to be monitored and controlled through the integration of regulations and guidelines on forestry, agricultural, mining or urban waste management. In many cases the implementation of such guidelines may lead to advantages for the land users themselves – for example, reforestation and good forest practices enhance the long-term timber yields; better agricultural practices reduce soil erosion and retain water for the dry season; better waste management improves quality of life and health for urban residents. However, there is normally a need to have a proper monitoring and enforcement mechanism to ensure effective use of the regulations.

36. In terms of control of new development activities, various mechanisms can be used to minimise environmental impacts. The first is environmental assessment and zoning whereby the land use and natural resources of the river basin are surveyed and the basin is zoned according to the different types of land use that may be permitted in each zone without having a significant impact on other zones or the river or wetland systems. There may also be restrictions on particular activities within a zone in order to ensure sustainability.

37. The second measure that is more applicable to proposed new development projects is Environmental Impact Assessment (EIA). EIA provides a framework for assessing the implications of development options on the environment (including wetlands). (Refer to Resolution VII.16.)

38. Thirdly, Cost-Benefit Analysis (CBA) is a tool to calculate the net impact of a project on the economic welfare of society by measuring all the costs and benefits of the project. Although most CBA results can be expressed in monetary terms, some costs such as those arising from the displacement of people and loss of wetland species may be difficult to express in that way. Appropriate decision-making requires an analysis of the economic, social and environmental costs and benefits of water management plans through EIA and CBA.

39. It is important that multidisciplinary teams conduct the processes mentioned above and seek to engage the stakeholders at an early stage.

40. The following guidelines should be noted:

Section G

Guidelines to assist Contracting Parties minimise the impacts of land use projects on wetlands and their biodiversity

G1. Develop integrated land use plans for each river basin as a means to minimise the impact of different activities and land uses on the river and wetland systems as well as local residents.

G2. Develop and enforce appropriate regulations to control land uses, especially forestry, agriculture, mining or urban waste management, so as to minimise their impact on river and wetland ecosystems.

G3. Carry out Environmental Impact Assessment (EIA) and Cost Benefit Analysis (CBA) studies for development projects which may have significant impacts on rivers and wetlands using independent multidisciplinary teams, and in consultation with all stakeholders, and consider alternative proposals including the no-development option.

G4. Disseminate the findings of any EIA and CBA in a form which can be readily understood by all stakeholders.

G5. Ensure that there are adequate control and mitigation measures to minimise, or compensate for impacts if development projects are allowed to proceed.

Minimizing the impacts of water development projects

41. Water resource development projects are generally aimed at modifying the natural water flows in a river basin for purposes such as storing water through drought periods, preventing floods, transferring water to irrigated agricultural areas, industrial and domestic water supply, improving navigation and generating electricity. Such projects have frequently been developed through the construction of engineered structures such as dams, diversion canals, channelisation of rivers, flood levees, etc. Many such projects, by modifying the natural conditions which have allowed wetlands to develop, have had a significant negative impact on wetlands and associated biodiversity.

42. Some of the most significant impacts of such projects include: reduction in river flows, blocking of pathways for migratory fish and other aquatic species, increased water pollution levels, disruption of timing of natural floods which maintain wetlands; reduction of sediment and other nutrient input into floodplain wetlands, drainage or permanent inundation of riverine wetlands and salinisation of surface and groundwater.

Assessment and mitigation

43. In a number of cases it has been found that the social and economic losses as a result of the degradation of the downstream wetlands have been significantly greater than the benefits gained from the water development project itself. Various methodologies have been developed to help identify potential social and environmental costs consequential of

development activities. These include EIA, CBA, Social Impact Assessment (SIA) and Participatory Rural Appraisal (PRA). (Refer to Resolution VII.16.)

44. However, several of these standard assessment procedures are not so easily applied to water development projects, or to predicting the impacts of complex river-wetland ecosystems. In recent years some specific procedures have been developed for wetland/water resource projects such as Howe et al, *EIA Scoping Manual for Tropical Wetlands* and the Inter-American Development Bank *Manual on Integrating Freshwater Ecosystem Function and Services with Water Development Projects* (in press). Since the wetlands and associated biodiversity to be impacted are often of significance to a broad range of local users, it is important that a mechanism for stakeholder consultation is established early in the project cycle.

45. As discussed in the preceding section, natural wetlands often play an important role in river management and can often be rehabilitated or restored to provide an alternative to generally more costly, engineering solutions to flood control, groundwater recharge and water quality improvements. Alternatives to irrigation and industrial/domestic water supply schemes include water conservation, treatment or recycling and development of alternate crops or industries to suit natural water availability.

46. The following guidelines should be noted:

Section H

Guidelines for Contracting Parties relating to reducing the impact of water development projects on wetlands

H1. Ensure that proposals for water development projects are carefully reviewed at their initial stages to determine whether non-structural alternatives may be feasible, possible and desirable alternatives.

H2. Take all necessary actions in order to minimise the impact of water development projects on biodiversity and socio-economic benefits during the construction phase and longer term operation.

H3. Ensure that the project design/planning process includes a step by step process to integrate environmental issues, especially initial biodiversity/resource surveys, and post-project evaluation and monitoring.

H4. Incorporate long-term social benefit and cost considerations into the process from the very initial stages of project preparation.

Maintenance of natural water regimes to maintain wetlands

47. Wetland ecosystems depend on the maintenance of the natural water regimes such as flows, quantity and quality, temperature and timing to maintain their biodiversity, functions and values. The natural flow regime can be considered THE most important variable that regulates the ecological integrity of riverine wetland ecosystems. The construction of structures that prevent the flow of water, and of channels that carry water out of the

floodplain faster than would occur naturally, result in the degradation of natural wetlands and eventual loss of the services they provide. In response to these concerns, a number of countries have introduced legislation and guidelines to ensure adequate allocation of water to maintain natural wetland ecosystems.

48. In cases where structural changes are necessary, water development projects involving the alteration of natural flow regimes should adhere to the following guidelines in order to protect or restore wetland ecosystems.

49. The following guidelines should be noted:

Section I

Guidelines for Contracting Parties relating to the maintenance of natural water regimes to maintain wetlands

I1. Undertake studies to determine the minimum and ideal flows and flow regimes (including seasonal modulation) required to maintain natural riverine wetland ecosystems.

I2. With this information (I1. above), establish the optimum flow allocations and regimes to maintain key wetlands and other key ecological functions of river basins.

I3. In situations where available information on biological parameters and physical habitat is inadequate for a definitive decision on the required optimum flow, use the precautionary principle to maintain the natural situation as closely as possible.

I4. Develop sustainable water allocation plans for the various resource users within the river basin, including allocating water to maintain wetlands.

I5. Regulate and monitor the impacts of major infrastructure developments (levees, embankments, roadways, weirs, small dams and cuttings) undertaken within river and flood corridors.

Protection and restoration of wetlands, and their biodiversity, in the context of river basin management

50. The protection and restoration of wetlands is an important strategy within each river basin , not only because the wetlands provide services which can assist with water management, but also because wetlands are critical ecosystems that deserve protection and restoration in their own right. (Refer also to Resolution VII.17.)

51. Many wetland-dependent species, especially fish and amphibians, require management in the river basin context to ensure their survival. In most countries, the protection of habitats and wildlife is conducted according to administrative boundaries and not river basin boundaries. This can lead to protection measures for one site or species being nullified by activities elsewhere in the river basin which, for example, block migration of the fish species or water flow to the wetland site. The restoration of degraded wetlands is

one of the most important possibilities for reversing the trend of declining biological diversity within river basins.

52. The following guidelines should be noted:

Section J

Guidelines for Contracting Parties for the protection and restoration of wetlands and their biodiversity

J1. Assess the status of wetlands and their biodiversity in each river basin and, where indicated, undertake the actions needed to provide better protection measures.

J2. In assessing the status of wetlands in each river basin, consider the inclusion of key sites in the List of Wetlands of International Importance (Ramsar List).

J3. Ensure that management plans for Ramsar sites are prepared taking into consideration potential off-site impacts from within the river basin, as well as the site-specific issues. (Refer to Resolution 5.7: *Guidelines on management planning for Ramsar sites and other wetlands*.)

J4. Review and, where necessary, adjust regulations and procedures for conservation of wetland-related biodiversity, especially for fish and other aquatic species, to protect rare species and prevent over-exploitation of more common species.

International cooperation

Special issues related to shared river basin and wetland systems

53. In cases where a river basin is shared between two or more Contracting Parties, the Ramsar Convention's Article 5 makes it clear that these Parties are expected to cooperate in the management of such resources. (Refer to Resolution VII.19.)

54. The declaration of the Second World Water Forum in Paris, in March 1998, emphasized that riverine countries need to have a common vision for the efficient management and effective protection of shared water resources. One option to consider in achieving such outcomes is the establishment of international river commissions, created by several riverine countries to facilitate consultation and broad coordination.

55. Countries sharing a drainage basin are encouraged to establish frequent specific contacts in order to exchange information on the water resource and its management. Options for this include:

55.1 establishing networks for monitoring and exchanging data on the water quality and quantity in the basin,
55.2 a joint analysis of information on the quantity and type of water used for various purposes in each country;
55.3 exchange of information on protection measures for groundwater, upper catchments and wetlands;

55.4 sharing of information on structural and non-structural mechanisms for regulating flow for navigation and flood prevention.

56. The aim should be the preparation of technical reports on the river basin, including information on the needs of the local inhabitants in each part of the basin, as well as existing or potential problems in parts of the river basin that require separate or collaborative efforts to deal with them.

57. The following guidelines should be noted:

Section K

Guidelines for Contracting Parties for the management of shared river basins and wetland systems

K1. Identify and describe shared river basins, document the key issues of common concern in the basin (diagnostic study), and develop formal joint management arrangements or collaboration for development and implementation of action plans to deal with such issues.

K2. Where appropriate, establish or strengthen bi- or multi-state river basin management commissions to promote international cooperation for shared water resources and wetland management.

K3. With regard to shared river basins, Contracting Parties should inform the Ramsar Bureau of the establishment of any joint management arrangements and also of actions by other party or non-party states which may lead to changes in the ecological character of sites included in the List of Wetlands of International Importance (Ramsar List) in their own portion of the basin.

Partnership with relevant conventions, organizations and initiatives

58. In order to undertake an effective approach to promoting the integration of wetland conservation and wise use into river basin management, it is important that the Contracting Parties to the Ramsar Convention are aware of, and take into consideration, the related activities of other international conventions, organizations and initiatives.

59. The sustainable use of freshwater has been identified as a critical component of Agenda 21 and as such has been the focus of a series of meetings under the auspices of the United Nation's Commission on Sustainable Development and other UN agencies. Three other international initiatives should be mentioned:

59.1 creation of the Global Water Partnership to act as a framework to coordinate efforts to promote integrated water resource management, especially in developing countries;
59.2 the development of the Vision for Water, Life and the Environment through the Global Water Commission under the auspices of the World Water Council; and

59.3 the establishment by the World Bank and IUCN-The World Conservation Union of the World Commission on Dams.

60. It is important that these and other appropriate guidelines and activities under the framework of the Ramsar Convention serve as a linkage and input to these other initiatives at the international level.

61. In terms of other conventions and agreements, the most relevant in terms of these Guidelines at the global level are as follows:

61.3 the Convention on Biological Diversity (CBD) which has identified the conservation of the biodiversity of inland waters as a particular priority. COP4 of the CBD adopted a Joint Work Programme with the Ramsar Convention to address this matter;

61.2 the Convention on the Law of the Non-Navigational Uses of International Watercourses (New York, 21 May 1997: not yet in force) which requires states to avoid, eliminate or mitigate significant harm to other watercourse states and establishes detailed rules with regard to the changes in use of any international watercourse. Issues covered include EIA, consultation, joint protection of watercourse ecosystems, pollution control, introduction of alien species, prevention of erosion, siltation, and salt-water intrusion; and

61.3 the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA).

62. At the regional and river basin level there are over 200 agreements which provide a basis for cooperation in the management of shared water resources.

63. The following guidelines should be noted:

Section L

Guidance for Contracting Parties on partnership with relevant conventions, organizations and initiatives

L1. Ensure that these guidelines, and other related guidelines under the Ramsar Convention, are brought to the attention of the relevant international conventions, organizations and programmes, with a view to ensuring that the aspirations of the Ramsar Convention are reflected in the activities of these other initiatives.

L2. Ensure close coordination at the national level between the Ramsar Administrative Authorities and the focal points for other international conventions and agreements related to these subjects.

L3. Ensure, as appropriate, adequate consideration of wetland related issues in the operation of any regional agreements related to shared river basins and water resources.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Guidelines for international cooperation under the Ramsar Convention[1]

1. RECALLING Article 5 of the Convention which obliges Contracting Parties to *"consult each other about implementing obligations arising from the Convention 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*";

2. AWARE of the previous Resolutions and Recommendations relating to international cooperation adopted by previous Conferences of the Contracting Parties, and most notably, Resolutions 4.4, VI.9 and VI.10 and Recommendations 1.2, 3.4, 3.5, 4.11, 4.12, 4.13, 5.4, 5.5, 6.4 and 6.16;

3. RECOGNISING that the Strategic Plan of the Convention 1997-2002, through General Objective 7, prescribes a range of priority actions relating to international cooperation;

4. RECOGNISING IN PARTICULAR Action 7.3.4 of the Strategic Plan of the Convention which directs that the Standing Committee and the Ramsar Bureau should "*develop, for consideration at a Technical Session of the 7th COP (1999), guidelines for Contracting Parties on how to carry out their obligations in the field of international cooperation, particularly as regards obligations concerning national funding agencies which provide assistance that may affect wetlands in developing countries*";

5. EXPRESSING thanks to those Contracting Parties and others that contributed to the development of the *Guidelines for international cooperation under the Ramsar Convention* and, in particular, the Global Environment Network for the preparation of the resource paper on development assistance presented to Technical Session V of this Conference;

6. NOTING WITH APPROVAL the success of the internship programme within the Ramsar Bureau as an illustration of international cooperation and training initiatives;

7. ACKNOWLEDGING the achievements of the Small Grants Fund (Resolution VII.5), yet EXPRESSING CONCERN that this significant mechanism for international cooperation

[1] Turkey registered a reservation concerning the content of the last part of paragraph 8 of the preamble of the Resolution and of sections 1.1(b), 2.1.1, 2.1.2 and items A2 and A3, together with the title, of the box containing Section A, of the Guidelines. Turkey declared that, consequently, it will not consider that Resolution VII.19 is a legally binding document, as far as the above-mentioned points are concerned. The full text of the declaration by the Turkish Delegation appears in paragraph 135 of the Conference Report.

under the Convention is unable to support all of the suitable projects submitted by eligible Contracting Parties each year; and

8. NOTING that the *Guidelines for international cooperation under the Ramsar Convention* are closely linked to a number of the other decisions of this Conference and in particular to the following: partnerships with international organizations (Resolution VII.3); partnerships and cooperation with other conventions, including harmonised information management infrastructures (Resolution VII.4); the Ramsar Convention's Outreach Programme (Resolution VII.9); integrating wetland conservation and wise use into river basin management (Resolution VII.18); and multilateral cooperation on the conservation of migratory waterbirds in the Asia-Pacific region (Recommendation 7.3);

THE CONFERENCE OF THE CONTRACTING PARTIES

9. RECOMMENDS the *Guidelines for international cooperation under the Ramsar Convention* (as annexed) and URGES all Contracting Parties to consider their implementation, adapting them as necessary to suit national situations;

10. CALLS UPON Contracting Parties in their implementation of these Guidelines to give special attention to:

    i. identifying shared wetlands, river basins and wetland-dependent species and supporting initiatives directed at the management of these in cooperation with other Contracting Parties and organizations, as appropriate (Guidelines, Section A, 1-3, and Section B, 1-4);

    ii. harmonising the implementation of the Ramsar Convention with that of other appropriate regional and international environmental conventions and working cooperatively with international programmes and organizations in pursuing the actions recommended in these Guidelines (Guidelines, Section C, 1-2);

    iii. intensifying efforts, especially the application of site twinning arrangements, which are designed to share expertise and information and provide training for those people directly involved with wetland conservation and wise use activities (Guidelines, Section D, 1-4);

    iv. undertaking the range of actions recommended in the Guidelines to raise the level and effectiveness of international development assistance programmes directed at the long term conservation and sustainable use of wetlands (Guidelines, Section E, 1-15), in accordance with national plans and priorities;

    v. reviewing all aspects of international trade in wetland-derived products and taking any actions needed to ensure that such harvesting is sustainable (Guidelines, Section F, 1-7), taking into account discussions in more relevant fora;

    vi. ensuring that all foreign investment activities relating to wetlands within the country are subject to impact assessments, promoting Codes of Conduct for the business sector in this regard and considering the introduction of measures which will permit resources derived from wetland-related development activities to contribute to the long-term management of the resource (Guidelines, Section G, 1-3).

11. ENCOURAGES Contracting Parties to consider as part of their established, or evolving, policy and legal frameworks relating to wetlands these Guidelines and the issues they address, in full (Resolutions VII.6 and VII.7);

12. INVITES Contracting Parties to provide the resources needed to expand the internship programme of the Ramsar Bureau as a high-priority training tool for the citizens of developing countries and those with economies in transition;

13. URGES Contracting Parties, international organizations, and the business sector to escalate their efforts to provide the resources needed in terms of the amounts pledged and commitment over a longer period, for instance a triennium, to allow the Ramsar Small Grants Fund to support all of the many worthy projects which are submitted each year; and

14. REQUESTS the Ramsar Bureau, with assistance from Contracting Parties and the Convention's International Organization Partners, to gather and disseminate model Codes of Conduct for the business sector undertaking activities in association with wetlands.

Annex

Guidelines for International Cooperation under the Ramsar Convention

Implementing Article 5 of the Convention

§1. Introduction

§1.1 Interpreting Article 5 of the Convention
§1.2 Guidance given by past Resolutions and Recommendations of the Conference of the Contracting Parties
§1.3 Strategic Plan of the Convention - General Objective 7

§2. Guidelines for International Cooperation

§2.1 Managing shared wetlands and river basins
2.1.1 Transboundary (international) wetlands
2.1.2 Transboundary (international) river basins

§2.2 Managing shared wetland-dependent species
2.2.1 Migratory waterbirds
2.2.2 Other migratory species

§2.3 Ramsar working in partnership with international/regional environment Conventions and agencies
2.3.1 Other global environment-related Conventions
2.3.2 Regional environment-related Conventions, agreements, organizations
2.3.3 International programmes and organizations

§2.4 Sharing of expertise and information
2.4.1 Knowledge sharing
2.4.2 Training
2.4.3 Site twinning or networks

§2.5 International assistance to support the conservation and wise use of wetlands
2.5.1 Enhancing environmental funding for wetlands
2.5.2 Ensuring adequate consideration of wetlands in sectoral strategies and development programmes
2.5.3 Supporting integration of wetland issues in national planning frameworks
2.5.4 Improving capacity of development assistance agencies
2.5.5 Enhancing capacity of recipient governments
2.5.6 Enhancing cooperation among development assistance agencies and with Ramsar Administrative Authorities

§2.6 Sustainable harvesting and international trade in wetland-derived plant and animal products
2.6.1 Harvesting controls and monitoring

2.6.2 Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)

§2.7 Regulation of foreign investment to ensure wetland conservation and wise use
2.7.1 Impact assessment
2.7.2 Codes of Conduct for foreign interests

§1. Introduction

1. Article 5 of the Convention states that **"***the Contracting Parties shall consult each other about implementing obligations arising from the Convention 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*."

2. At the 6th Conference of the Contracting Parties, the Strategic Plan of the Convention on Wetlands (Ramsar, Iran, 1971) was approved. Action 7.3.4 of the Plan directs that the Standing Committee and the Ramsar Bureau should "*develop, for consideration at a Technical Session of the 7th COP (1999), guidelines for Contracting Parties, particularly as regards obligations concerning national funding agencies which provide assistance that may affect wetlands in developing countries*."

§1.1 Interpreting Article 5 of the Convention

3. In these guidelines the following assumptions have been made with respect to interpreting the text of Article 5.

   a) **"*The Contracting Parties shall consult each other about implementing obligations arising from the Convention . . .*"** It has been assumed that this text refers to all obligations arising from the Convention text, including, but not restricted to, Article 2.6 (conservation, management and wise use of migratory waterfowl), Article 3.1 (planning and implementation of wise use), Article 4.3 (encouraging research and the exchange of data and publications), and Article 4.5 (promoting training, management and wardening).

   b) **". . . *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*."** It has been assumed that this text refers to wetlands which cross international borders, whether Wetlands of International Importance or not - this is consistent with Article 3.1 - and river basins which cross international borders, irrespective of whether or not they contain Wetlands of International Importance.

   c) **"*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.*"** It has been assumed that this text refers to cooperation between Contracting Parties in areas such as shared wetland-dependent species, bilateral and multilateral assistance, trade in wetland-derived plant and animal products, and foreign investment practices.

§1.2 Guidance given by past Resolutions and Recommendations of the Conference of the Contracting Parties

4. In the six previous meetings of the Conference of the Contracting Parties, there have been a number of Resolutions and Recommendations adopted which provide advice on aspects of international cooperation under the Convention. These are:

Resolutions

- Implementation of Article 5 of the Convention (Resolution 4.4);
- Cooperation with the Convention on Biological Diversity (CBD) (Resolution VI.9);
- Cooperation with the Global Environment Facility (GEF) and its implementing agencies: the World Bank, UNDP and UNEP (Resolution VI.10)

Recommendations

- Assistance for developing countries (Recommendation 1.2);
- Responsibility of development agencies towards wetlands (Recommendation 3.4);
- Tasks of the Ramsar Bureau in respect of development agencies (Recommendation 3.5);
- Cooperation with international organizations (Recommendation 4.11)
- Cooperation between Contracting Parties for the management of migratory species (Recommendation 4.12);
- Responsibility of multilateral development banks towards wetlands (Recommendation 4.13);
- Relationship between the Ramsar Convention, the GEF and the CBD (Recommendation 5.4);
- Inclusion of conservation and wise use of wetlands in multilateral and bilateral development cooperation programmes (Recommendation 5.5)
- Conservation and wise use of wetlands in bilateral and multilateral development cooperation programmes (Recommendation 6.16).

§1.3 Strategic Plan of the Convention - General Objective 7

5. The Strategic Plan adopted at the 6th Conference of the Contracting Parties includes General Objective 7 related to international cooperation. This General Objective has four Operational Objectives, which have been used to help identify the themes to be addressed in the Guidelines given in Section 2.

- Operational Objective 7.1: Managing shared wetlands and catchments (called river basins here).
- Operational Objective 7.2: Cooperation with international and/or regional environmental conventions and agencies.
- Operational Objective 7.3: Encouraging the development assistance community and multinational companies to apply the Wise Use Guidelines
- Operational Objective 7.4: Funding the implementation of the Convention, notably in developing countries and those in economic transition.

§2. Guidelines for International Cooperation

6. Contracting Parties are urged to consider and adopt as appropriate the following Guidelines as the basis for their implementation of Article 5 of the Convention.

§2.1 Managing shared wetlands and river basins

7. The Ramsar Convention has always recognized that a fundamental obligation of Contracting Parties pursuant to Article 5 was cooperation in the management of so-called shared wetlands. The concept of shared wetlands, now regularly referred to as international wetlands, is a relatively simple one, meaning those wetlands which cross international boundaries. In the past, priority has been given to encouraging the Contracting Parties with shared wetlands included in the List of Wetlands of International Importance to cooperate in their management. Article 3.1 of the Convention indicates very clearly that that cooperation should extend to all shared wetlands, whether Ramsar-listed or not.

8. As the Convention has recognized and responded to the need to manage wetlands as part of river basins, so has the interpretation of international cooperation been expanded to include those situations where a wetland in one Contracting Party is within the water catchment of another Contracting Party and where the actions of the Contracting Parties within the catchment area may result in changes to the ecological character of the wetland. If the wetland in such a scenario is Ramsar-listed, the Contracting Parties might not be able to live up to their obligations under the Convention, through circumstances beyond their control. The inability of an upstream Party to deal with a problem impacting downstream should also be considered. A similar situation can arise with coastal wetlands, where the actions or inactions of one Contracting Party may adversely impact on the wetlands of another. Land-based marine pollution is a case in point.

9. In this area of shared river basins Contracting Parties should, where appropriate, seek to harmonize their implementation of Article 5 of the Ramsar Convention with obligations arising from any watercourse agreements to which they may also be signatories. At the international and regional scale there are over 200 such agreements which already provide a legal basis for cooperation. At regional level, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 17 March 1992) sets out important principles and rules which provide a comprehensive basis for the development of new agreements.

10. As indicated above, another aspect of managing shared wetlands and river basins is that of alien or invasive species. For wetlands which cross international boundaries there is a clear responsibility on the part of all jurisdictions involved to do everything possible to restrict the spread of such invasive species, where they would have negative impacts. The same applies for shared river basins where preventing the water-borne introduction of an invasive species from one Contracting Party into an adjoining state should also be considered a responsibility under the Convention's guidelines for international cooperation.

§2.1.1 Transboundary (international) wetlands

11. Under these Guidelines for International Cooperation, Contracting Parties are urged to identify all their shared wetland systems (including those in the coastal zone) and cooperate in the management of these with the adjoining jurisdiction(s). This cooperation may extend to formal joint management arrangements or collaboration in the development and implementation of a management plan for the site. While not a comprehensive global assessment, the report prepared by the World Conservation Monitoring Centre (WCMC) "Shared wetlands and river basins of the world" provides a preliminary basis for the identification of shared wetlands. This report indicates that of 955 Ramsar sites considered in the analysis, 92 (9.6%) sites may be subject to impacts from adjoining jurisdictions and could therefore benefit from cooperative management approaches between countries.

§2.1.2 Transboundary (international) river basins

12. In the same way that Contracting Parties are urged to identify and then cooperate in the management of shared, or international, wetlands, so there is an expectation that similar cooperation will be pursued for shared or international river basins and coastal systems. The establishment of multi-state management commissions is an important concept for those countries which share river basins to consider and pursue energetically. Experience has shown these to be an effective mechanism to promote international cooperation over water resource management, which includes the wetlands forming part of these river basins. As indicated in §2.1.1 above, the WCMC report "Shared wetlands and river basins of the world" provides a preliminary basis for the identification of international river basins to assist Contracting Parties with undertaking this element of the Guidelines. This report indicates that of the 955 Ramsar sites considered, 267 (28%) are located within international river basins.

13. For shared coastal wetlands Contracting Parties are urged to develop frameworks of cooperation within existing Regional Seas Programs and embodying Large Marine Ecosystem (LME) concepts. Regional Seas Programs provide a legal framework for cooperation, including a convention and appropriate protocols. Contracting Parties are also encouraged to manage major coastal wetlands systems (such as barrier reefs and expanses of mangrove/reef/seagrass systems) within the context of LMEs. A model for this management approach is Australia's Great Barrier Reef. While not a transboundary site (nor Ramsar-listed), it is an excellent illustration of wise use in action which should be considered by those Contracting Parties responsible for managing multi-state shared coastal wetlands. Appropriately, this model takes into consideration the management of the river systems discharging into the zone of influence for the reef system and seeks to ensure that potential negative impacts from these sources are controlled. For shared coastal wetland systems this an important consideration.

14. The establishment of river basin management commissions or equivalent cooperative mechanisms for coastal wetland systems may sometimes require expert and impartial assistance as well as significant resources. The expertise can come from some established bodies, and the Ramsar Convention should promote the involvement of these in situations where it seems necessary or warranted. Contracting Parties may make use of existing organizations, created for other purposes or associated with other international or regional conventions, instead of creating new autonomous arrangements. The donor community also needs to recognize the establishment and operations of river basin management and coastal management commissions as a priority under their programmes for sustainable development.

Section A

Guidelines related to managing shared wetlands and river basins

A1. Contracting Parties are encouraged to identify all of their shared wetland systems and cooperate in their management with the adjoining jurisdiction(s), through actions such as formal joint management arrangements or collaboration in the development and implementation of bi- or multilateral management plans for such sites.

A2. Likewise, there is an expectation that similar cooperation will be pursued for shared or international river basins and coastal systems through the establishment of bi- or multilateral management commissions.

A3. Contracting Parties are urged to work closely with Regional Seas Programmes and other appropriate international and regional conventions, to promote the wise use management principles of the Ramsar Convention, and to support the establishment of equitable and sustainable management regimes for shared river basins and coastal systems.

§2.2 Managing shared wetland-dependent species

15. International cooperation in the management of so-called shared species has been a priority under the Ramsar Convention since its inception. In fact, the motivation for countries to develop and put into place a convention like Ramsar was largely provided by a desire to promote international cooperation for migratory waterbird conservation. Today, the Convention continues to promote this aspect of its charter very strongly, and as the level of knowledge regarding migratory species grows, so too does the imperative for the Convention to take a more strategic approach to the management of shared species. It is important to recognize that it is not always the very large wetland sites that are critical for the conservation of migratory species; many small wetlands are also vital elements of migration routes and they are important, collectively, for biodiversity conservation. It also should be understood that not all shared species are migratory. There are non-migratory species which have a limited range and are found in transboundary wetlands or within adjoining countries. For these, cooperation in the management of their wetland sites, as encouraged through section §2.1 above, is critical.

16. In recognition of the close relationship between them, there is a Memorandum of Understanding between the Ramsar Convention and the Convention on Migratory Species (CMS). Under this, the challenge for the Ramsar Convention is to work to see protected and managed appropriately the critical habitats for the endangered migratory species which CMS endeavours to conserve through multilateral agreements among the range states. The revised Ramsar Criteria for Identifying Wetlands of International Importance (Resolution VII.11) with their newly formulated Objectives are now clearly focused on this as one fundamental element of the vision for the List of Wetlands of International Importance.

17. With this increase in the understanding of species distribution and biology has come a recognition that the shared species are more than just the waterbirds with their very

noticeable migrations. In coastal wetland environments there are many species which migrate, such as marine turtles and certain fish stocks. The Convention, in partnership with CMS, must now turn its attention to these as well as its traditional clients, the waterbirds.

18. The very forces that motivated the establishment of the Ramsar Convention and CMS also played a role in the development of the 1986 North American Waterfowl Management Plan. This Plan represents a signed agreement between the governments of Canada, the United States, and Mexico (as of 1994). Through the Plan, together they seek to recover and safeguard waterfowl populations by protecting and restoring the wetland habitats upon which they depend throughout North America. As with Ramsar, international cooperation has been a priority of the Plan since its inception, and the conservation partnerships it has established to achieve it, called joint ventures, are a unique hallmark of the Plan. By encouraging these three countries to take both a landscape-level and partnership approach to conservation, the Plan not only offers long-term benefits to a wide range of wetland-dependent species but also serves as a model for international cooperation to be applied in other parts of the world. The conservation of migratory waterbirds in the Asia-Pacific is being promoted under the Asia-Pacific Migratory Waterbird Conservation Strategy 1996-2000, through the establishment of networks of migratory shorebirds, cranes and Anatidae (see Recommendation 6.4). Also the Western Hemisphere Shorebird Reserve Network (WHSRN) has been successful in promoting conservation of shorebirds in the Americas through local partnerships developed at sites.

§*2.2.1 Migratory waterbirds*

19. For migratory waterbirds the Ramsar Convention has a responsibility as a part of international cooperation to see the important wetland habitats which form flyways recognized and managed appropriately in perpetuity. The Ramsar List of Wetlands of International Importance is the tool which the Convention has available to work toward this goal. Contracting Parties should have as a priority the identification and designation of all sites which satisfy the waterbird criteria for identifying wetlands for inclusion in the Ramsar List. With the development and implementation of management plans for these sites the Convention will make a significant contribution to the global efforts to conserve these species. The concept of site networks (see section §2.4.3) is one that the Convention should promote more strongly, in order to link the managers of these sites to allow for information sharing and to promote the setting of strategic conservation objectives rather than simply addressing these on a site-by-site basis.

§*2.2.2 Other migratory species*

20. As stated in the introduction to this section on shared wetland-dependent species, it is now recognized that the Ramsar Convention should be taking a more active role in the protection and management of wetland habitats for a wider range of species than simply the waterbirds. Under CMS, actions are under way to develop multilateral agreements for the conservation of species such as marine turtles. The contribution of the Ramsar Convention to this can again be through the designation of critical habitats as Wetlands of International Importance and the encouragement of site networks. As with migratory waterbirds (see §2.2.1) above, the fish criteria for identifying Wetlands of International Importance provide one avenue for concerted action by the Contracting Parties to ensure that these critical areas on the migration routes are designated and managed appropriately.

Section B

Guidelines related to shared wetland-dependent species

B1. Contracting Parties should give priority to the identification and designation of all sites which satisfy the waterbird criteria for identifying Wetlands of International Importance, followed by the development and implementation of management plans for these sites. In the context of these guidelines this should apply especially for flyway and shared sites. Equally, for other wetland-dependent species shared between Contracting Parties (such as fish), the designation and management of their important wetland habitats is a responsibility in terms of international cooperation.

B2. The concept of site networks for shared species is one that the Convention should promote more strongly, aiming to link the managers of these sites to allow for information sharing and technical and financial assistance when so required. The setting of strategic conservation objectives for networks as a whole, and for the species' populations they support, is crucial. Contracting Parties should consider nomination of sites to relevant international networks (East Asia-Australasian Shorebird Reserve Network, North East Asian Crane Site Network, East Asian Anatidae Site Network, and Western Hemisphere Shorebird Reserve Network).

B3. The Convention will also seek advice from the Convention on Migratory Species about wetland-dependent species and support its efforts to encourage the development of multilateral agreements for the conservation of these species.

B4. Contracting Parties are urged to examine and adopt as appropriate regional models, such as the North American Waterfowl Management Plan and the Asia-Pacific Migratory Waterbird Conservation Strategy 1996-2000, in establishing multilateral agreements for the conservation of wetland-dependent species. Ideally, these agreements should include the partnership approaches promoted by the North American Waterfowl Management Plan and the Asia-Pacific Migratory Waterbird Conservation Strategy 1996-2000 which bring together all levels of government administration, non-government organizations and the business sector.

§2.3 Ramsar working in partnership with international/regional environment Conventions and agencies

21. The Ramsar Strategic Plan 1997-2002 adopted in 1996 provides direction under Operational Objective 7.2 on international cooperation related to international/ regional environment conventions and agencies. Essentially this sets priorities for the Convention in the development of cooperation and synergy with these conventions and agencies in order to promote shared objectives and goals. The Ramsar Convention also has a unique partnership with a number of international non-government organizations (BirdLife International, IUCN-The World Conservation Union, The World Wide Fund for Nature - WWF, and Wetlands International) and is seeking to allow for expansion in this area through Resolution VII.3. Cooperation with these International Partners of the

Convention will continue to accelerate implementation of the Convention at all levels from international to local.

§*2.3.1 Other global environment-related Conventions*

22. Operational Objective 7.2 of the Ramsar Strategic Plan 1997-2002 and Resolution VII.4 refer to the development of cooperation with the Convention on Biological Diversity (CBD), the World Heritage Convention, the Man and Biosphere Programme, CMS (see §2.2 above), CITES (see §2.6.2 below), the United Nations Framework Convention on Climate Change, and the Convention to Combat Desertification. The Convention on Wetlands has a Memorandum of Cooperation with CBD and a Joint Work Plan in which the Ramsar Convention has the role of lead partner in CBD wetland conservation issues. As indicated above, an MoU is also in place with CMS and under these Guidelines (see §2.2 above) this arrangement will be strengthened through joint actions also. Memoranda of Cooperation with the Convention to Combat Desertification and of Understanding with the World Heritage Convention were signed in December 1998 and May 1999 respectively. The Ramsar Convention will continue to develop similar arrangements with the other international conventions and, through these, to elaborate joint work plans. Section §2.6.2 of these Guidelines provides the basis for immediate cooperation with CITES.

23. At the national level Contracting Parties need to ensure that the implementation of these conventions is harmonized and integrated wherever possible. Apart from domestic actions, each imposes obligations in terms of international cooperation and, in meeting these expectations, Contracting Parties should aim to coordinate their responses. This applies, to a greater or lesser degree, to all of the actions proposed herein and so taking an integrated approach should be more cost-effective.

§*2.3.2 Regional environment-related Conventions, agreements, organizations*

24. As with the international environment conventions, the Ramsar Convention needs to develop partnerships with the relevant regional conventions, agreements and organizations. Action 7.2.8 of the Ramsar Convention Strategic Plan identifies several such regional conventions, agreements and organizations with which partnership actions should be a priority. Among these are the South Pacific Regional Environment Programme, the Bern Convention on the Conservation of European Wildlife and Natural Habitats and the Amazonian Cooperation Treaty. Partnership with such regional initiatives will foster more cohesive responses to environmental challenges including wetland conservation and wise use. One example of a regionally-based arrangement that contributes greatly to fostering cooperation for wetland conservation and wise use is the Mediterranean Wetland Initiative (MedWet) involving the countries surrounding the Mediterranean Sea (Resolution VII.22). This is a model which should be promoted by the Convention.

§*2.3.3 International programmes and organizations*

25. There are a large number of international programmes and organizations with which the Ramsar Convention should be working more closely. Some are operating under the aegis of the United Nations and its bodies and agencies (Commission on Sustainable Development, UNDP, UNEP, World Health Organization, etc.) and the development of a formal Memorandum of Cooperation between the Ramsar Convention and the relevant

programmes of the United Nations will be pursued. Section §2.5 looks in detail at the relationship Ramsar should have with the donor community. Apart from these there are organizations and programmes such as the International Network of Basin Organizations and the Global Rivers Environmental Education Network which can offer their expertise to the Contracting Parties of the Ramsar Convention and with which a closer working partnership would clearly be advantageous. As indicated above, the continuation of cooperative actions with the Convention's International Organization Partners (Resolution VII.3) is also of critical importance, and efforts should be escalated at all levels to develop partnership approaches with these organizations. The Ramsar Convention will continue to develop partnerships with other appropriate international and regional conventions, agreements and programmes (as it has done with CBD, CMS, CCD and WHC) and through these to develop and implement joint programmes of work.

Section C

Guidelines related to partnership with international/regional environment Conventions and agencies

C1. At the national level, Contracting Parties should ensure that the implementation of environment conventions is harmonized wherever possible. This will allow each to take a more integrated approach to meeting its international and regional cooperation obligations.

C2. The development of a formal Memorandum of Cooperation between the Ramsar Convention and the United Nations will be pursued, and the Convention Bureau and Ramsar national Administrative Authorities are urged to pursue partnerships with the Convention's International Organization Partners and other relevant bodies such as the International Network of Basin Organizations and the Global Rivers Environmental Education Network.

§2.4 Sharing of expertise and information

§*2.4.1 Knowledge sharing*

26. In all countries there exists knowledge and expertise in wetlands management. Sometimes this resides with the indigenous people who may have relied upon the wetland ecosystems for generations, and who have applied wise use practices to sustain them for centuries. There is also that unwritten understanding which people living in association with a wetland have acquired from being a part of the same ecosystem over time, an understanding which has built an empathy and a respect for the values of the wetland. Then there is the cutting edge of new understanding born of research and the development of new technologies. This can be practical, hands-on research, more sophisticated equipment or low-cost technologies, or it can be about promoting better management practices through the application of new science in the many fields which wetland managers must now embrace.

27. A key to the Ramsar Convention achieving its global mission is to find ways to increase the sharing of this knowledge resource. Through the *Convention's Outreach Programme* (Resolution VII.9), Focal Points for Wetland Communication, Education and Public Awareness should be appointed, and similarly, a National Focal Point in each Contracting Party for the business of the Scientific and Technical Review Panel should be designated (Resolution VII.2). These Focal Points are expected to form global networks of expertise and review their national resources in these two fields (traditional and local knowledge and current/cooperative research findings) with a view to promoting knowledge sharing. It is also important that these focal points, Ramsar Administrative Authorities, and the Ramsar Bureau take every opportunity to collaborate with those involved in implementing other conventions to foster the accelerated sharing of knowledge. The concept of national or regional data collection centres is one which is gaining increasing support in some parts of the world.

§*2.4.2 Training*

28. Training people to implement all aspects of the Convention, and to manage wetland sites, remains a high priority. Globally, there are a range of institutions providing training in these various fields. The challenge for the Convention is to deliver the right sort of training to the people that need and desire it. The Ramsar Bureau has begun to assemble information on this through its Directory of Wetland Management Training Opportunities now available through its World Wide Web site. However, this does not provide the resources needed to get wetland practitioners into training programmes, or to see training programmes delivered on-site in those Contracting Parties where it is urgently needed. Another gap is that very few countries have conducted analyses to determine their priority training needs at the national, sub-national and local levels. Without such reviews of training needs, there is a risk that the training provided or offered will lack relevance.

29. Recognizing the need for sharing and delivering training to people to implement all aspects of the Convention in the Asia-Pacific region and the lack of existing international mechanisms, a model of the training initiative based on the Wetlands for the Future Initiative in the Neotropics should be developed in the Asia-Pacific. Such an initiative would benefit from the establishment of a regional wetland training coordination centre in the Asia-Pacific.

30. A priority under the *Guidelines for international cooperation under the Ramsar Convention* is to mobilise resources for training. Site twinnings and networks (see §2.4.3 below) may provide one avenue for mobilising training resources. Another is through direct approaches to the bilateral and multilateral donor community (see §Section 2.5). The Ramsar Small Grants Fund has training as a priority, and with the generous support of the Government of the USA the Ramsar Bureau manages the Wetlands for the Future Initiative, which focuses on training and capacity-building programmes in the Neotropical region.

§*2.4.3 Site twinning or networks*

31. Under the Ramsar Convention the concept of twinning between Ramsar sites in different Contracting Parties is encouraged as a way to promote dialogue and information sharing. The National Reports submitted for Ramsar COP7 indicate that at that time there were

fewer than 25 site twinnings in place involving Contracting Parties. Equally, the concept of site networks linking the wetlands used by migratory species has been encouraged under the Convention.

32. As suggested by the number of twinning arrangements in place at present, the full potential of this concept as a tool to promote international cooperation under the Convention has not been fully explored as yet, and it is a priority to do so through these Guidelines. Such arrangements should be pursued by Contracting Parties as a priority with the act of twinning or networking intended to carry with it the intent for sharing information, expertise and resources between the sites involved. These mechanisms can provide the framework for personnel exchanges for the purposes of training as much as opportunities for knowledge sharing about species and site management.

33. Twinnings and site networks can also provide a way for development assistance to be provided in a directed way, especially in north-south arrangements between sites.

Section D

Guidelines related to the sharing of expertise and information

D1. Through the Focal Points for Wetland Communication, Education and Public Awareness and for the work of the Scientific and Technical Review Panel (STRP), the Convention will increase its efforts to share knowledge (traditional, indigenous, and more recently derived technologies and methods) among Contracting Parties. A priority for these Focal Points should be to establish expert networks at the national level to allow for the rapid gathering and dissemination of this information.

D2. Training of the personnel responsible for implementing the Convention and all aspects of wetland management remains a very high priority for the Convention and should be promoted through information sharing (see above), mobilising resources from the development assistance community, programmes such as the Ramsar Small Grants Fund and Wetlands for the Future in the Neotropics, and through site twinning and networking. Other Contracting Parties are urged to follow the examples of existing and successful training programme efforts for wetland practitioners.

D3. A necessary precursor to undertaking training activities is to assess the training needs at the national, sub-national and local levels to ensure relevance.

D4. Contracting Parties are urged to give priority to site twinning and networking as a way to promote information sharing among site managers, to provide training opportunities, and where appropriate to direct development assistance.

§2.5 International assistance to support the conservation and wise use of wetlands

34. The Contracting Parties to the Ramsar Convention have long recognized the importance of mobilizing international assistance to support the conservation and wise use of wetlands, and that this forms a central element of international cooperation under Article 5. The first Conference of the Contracting Parties, in Recommendation 1.2, called

on developing countries to "*pay more attention to conservation measures in any request for and programming of assistance, and upon developed countries and international organizations to pay due attention to these requests in their development aid policies*". The subsequent Conferences of the Contracting Parties have approved a total of nine additional Resolutions and Recommendations (see §Section 1.2) calling for enhanced funding for wetland conservation and improved management and control of development assistance funding.

35. The Ramsar Convention Strategic Plan 1997-2002, under Operational Objectives 7.2, 7.3 and 7.4, provides further directions for intensifying international cooperation activities and mobilizing financial assistance for wetland conservation and wise use in collaboration with other conventions and agencies, both governmental and non-governmental.

§*2.5.1 Enhancing environmental funding for wetlands*

36. The support for wetland conservation and wise use from several of the bilateral and multilateral development assistance agencies has been steadily increasing over the past five years. This comes as a result of a growing recognition of the functions, values and benefits provided by wetland ecosystems and their importance for food and water security, poverty alleviation, and the conservation of biological diversity. However, it is of concern that the budgets and geographic and thematic coverage of some development assistance agencies have been significantly reduced during this same period.

37. Given the recognized importance of wetlands from environmental, economic and social perspectives, a priority under the Guidelines for International Cooperation is for Contracting Parties, and their bilateral development assistance agencies, to increase allocations for wetland conservation and wise use through existing environmental and other funds. At the same time, these agencies are encouraged to investigate and consider supporting the establishment in developing countries of innovative mechanisms for long-term fund generation for wetland conservation activities such as trust funds, user-pays contribution schemes, and the like.

38. In terms of multilateral assistance, Ramsar Resolution VI.10 noted the relevance of the GEF focal areas to wetlands and called for extension and deepening of cooperation with the GEF. Subsequently, the Convention on Biological Diversity (CBD), through Decision IV/4 of its Fourth Conference of the Contracting Parties in 1998, urged Contracting Parties to seek the support of the GEF for the conservation and sustainable use of the biological diversity of inland water ecosystems. Eligible Contracting Parties should examine this CBD Decision in detail and prepare suitable proposals for consideration by the GEF.

39. Contracting Parties, and development assistance agencies, are also encouraged to make long-term financial commitments to support the operations of the Ramsar Small Grants Fund for Wetland Conservation and Wise Use (SGF). The evaluation of the SGF (Resolution VII.5) has shown its value and effectiveness but revealed that many suitable projects each year cannot be supported due to a lack of financial resources for disbursement.

40. In line with Action 7.3.3 of the Ramsar Strategic Plan 1997-2002, Contracting Parties should also ensure that for their bilateral donor agencies there is appropriate monitoring of expenditures occurring in order to allow them to indicate to Conferences of the

Contracting Parties what level and type of assistance has been provided to developing countries and countries in transition in meeting their Ramsar obligations, and its effectiveness. Ideally, this would be provided through the introduction, where it does not exist at present, of a reporting category for wetland conservation issues into the project monitoring databases of the development assistance agencies.

§*2.5.2 Ensuring adequate consideration of wetlands in sectoral strategies and development programmes*

41. Apart from the issue of mobilizing finances, previous Ramsar Conferences of the Contracting Parties have also considered the responsibilities of the development assistance agencies in terms of considering wetland-related projects in their sectoral as well as broader strategies and policies. Recommendation 3.4 urged the development assistance agencies "*to formulate and adopt coherent policies directed at sustainable utilization, wise management and conservation of wetlands; and to create special programmes to ensure the integration of these policies into all of their activities*".

42. Although it is apparent that significant progress has been made in implementing certain elements of Recommendation 3.4, such as the use of Environmental Impact Assessments, other aspects remain to be implemented fully. A continuing priority is to ensure that wetland issues are appropriately considered within sectoral strategies and the general programmes of the development assistance agencies. Activities in the agriculture, fisheries, water resources, forestry, transportation and power generation sectors can potentially impact on wetlands, and it is vital that the strategies and policies directing the allocation of these financial resources are consistent with the Ramsar principle of wise use and these Guidelines for International Cooperation.

43. In particular, Contracting Parties with development assistance agencies should ensure that the actions called for under Recommendations 3.4 and 5.5 are undertaken, namely, "*to take appropriate steps for an assessment of their policies at regular intervals*" (Recommendation 3.4) and "*to review their development cooperation policies, in the light of the obligations and opportunities presented by Ramsar,* [and] *to support country-driven projects with a view to assisting developing countries to fulfill their Ramsar obligations*" (Recommendation 5.5). In this regard, reviews should be undertaken by these Contracting Parties to determine the extent to which the wetland conservation and wise use principles promoted by the Ramsar Convention are adequately considered in the policies related to the agriculture, fisheries, water resources, forestry, transport and power generation sectors, and to seek the necessary introductions or amendments to these policies.

44. In such reviews of the sectoral strategies and policies of their development assistance agencies, Contracting Parties should also seek to encourage the priority consideration of projects which apply the wise use principles of the Convention through environmentally sound development activities in wetlands, such as sustainable forestry or fishery, wetland restoration, ecotourism, non-structural flood control, etc.

§*2.5.3 Supporting integration of wetland issues into national planning frameworks*

45. Article 3 of the Convention calls on all Contracting Parties to formulate and implement their planning so as to promote the conservation of wetlands. Through the *Guidelines for the implementation of the wise use concept* and related decisions of Conferences of the Contracting

Parties, the development of a national wetland policy or strategy has been recognized as perhaps the best way of integrating wetlands into the national conservation and development agenda (Resolution VII.6 on *Guidelines for developing and implementing National Wetland Policies*).

46. In the same way, Recommendation 3.4 urged development assistance agencies "*to use their influence with borrowing or recipient governments to promote the formulation and adoption of national policies for wise use and conservation of wetlands*" and this should remain a priority. The formulation of wetland policies should also be an integral part of broader national planning related to social issues and economic development, and Contracting Parties are encouraged to promote such approaches. This may require assistance by means of capacity building or with direct assistance for incorporating wetland conservation and wise use considerations into sectoral development policies and the overall economic development plans for each country.

§*2.5.4 Improving capacity of development assistance agencies*

47. One mechanism for increasing the number of wetland-related projects supported by development assistance agencies is to raise the level of awareness amongst planners and policy-makers within these organizations, of the many functions and benefits provided by wetlands. The Outreach Programme of the Ramsar Convention (Resolution VII.9) identifies these officials as a priority target group, and Contracting Parties are urged to ensure that efforts are made to provide appropriate training and resource materials for the key decision-makers within their development assistance agencies.

48. Some assistance has been forthcoming in this area with publications such as the OECD Guidelines on Aid and Environment No.9: *Guidelines for Aid Agencies for Improved Conservation and Sustainable Use of Tropical and Sub-tropical Wetlands*. However, there remains a need to raise the general awareness and understanding of these agencies through a range of actions, many of which have been considered by previous decisions of Conferences of the Contracting Parties. Actions encouraged include internal and external training programmes *"to strengthen the ecological expertise in all departments involved in development and implementation of projects affecting wetlands"* (Recommendation 3.4), enhancing linkages with the Ramsar Administrative Authority within the country (Strategic Plan Action 7.4.2) and "*including representatives of ministries responsible for the granting or receipt of development assistance in the delegations to meetings of the Conference of the Contracting Parties"* (Recommendation 5.5).

§2.5.5 Enhancing capacity of recipient governments

49. Success in mobilizing the flow of development assistance for wetland-related projects is in part determined by the capacities, in terms of project development and implementation, of the recipient country and its willingness to give priority to wetland projects when seeking development assistance. The issue of capacity is a complex one that has to be considered on a case by case basis. The constraints may be determined by factors such as lack of human resources or the lack of experience with project development and dealings with donor agencies. The failure to have wetland-related projects given priority within national governments is also a complex question and may relate to factors such as a lack of awareness of the true values of wetlands among key decision-makers or a failure to have wetlands considered within the mainstream of government business through instruments

such as a integrated planning processes, a National Wetland Policy, or a National Ramsar Committee.

50. Previous Ramsar Conferences of the Contracting Parties have agreed that development assistance agencies should seek to "*strengthen the institutional arrangements and the ecological expertise both at the national level and among regional development authorities in the project regions, in order to implement . . . policies and to train and educate personnel at project implementation level*" (Recommendation 3.4). Potential recipient countries should seek training opportunities for their personnel to provide them with the necessary technical and project development skills. §Section 2.4 of these Guidelines is relevant here. Recipient countries are also further urged to seek resources from donors for the development of National Wetland Policies (or similar) and for implementing national communication, education and public awareness programmes for wetlands consistent with the Convention's Outreach Programme (Resolution VII.9). Both measures should serve to give wetland-related projects higher priority for funding assistance.

§2.5.6 Enhancing cooperation among development assistance agencies and with Ramsar Administrative Authorities

51. As wetland conservation and its wise use continues to be an increasingly important issue in many developing countries, development agencies should "*coordinate their programmes at the international level to ensure that their independent activities do not in combination adversely affect wetlands*" (Recommendation 3.4) and enhance cooperation with other development assistance agencies in sharing experiences and avoiding possible duplication of their activities in countries receiving assistance.

52. The matter of enhancing cooperation between the development assistance agency and the Ramsar Administrative Authority of the country was recognized under §Section 2.5.4 above as an important aspect of raising the capacity of the former, and is encouraged through Action 7.4.2 of the Strategic Plan 1997-2002. Contracting Parties are encouraged to develop a formal mechanism for consultations between their development assistance agency and the Ramsar Administrative Authority, and to ensure that National Ramsar Committees, where they exist, include a representative of the development assistance agency. The participation of a representative of the development assistance agency on the delegation to Ramsar Conference of the Contracting Parties is also urged (Recommendation 5.5).

Section E

Guidelines related to international assistance to support wetland conservation and wise use

E1. A continuing high priority for the Ramsar Convention is for Contracting Parties, and especially their bilateral development assistance agencies, to increase allocations for wetland conservation and wise use.

E2. The bilateral development assistance agencies are urged to investigate and consider supporting the establishment in developing countries of innovative mechanisms for long-term fund generation for wetland conservation activities, such as trust funds and user-pays contribution schemes, together with other incentive measures for the conservation and wise use of wetlands.

E3. Contracting Parties of both the Ramsar Convention and the Convention on Biological Diversity (CBD) are urged to examine CBD's Decision IV/4 and where appropriate to respond to its indications in terms of seeking financial support from the Global Environment Facility for suitable proposals related to the conservation and sustainable use of the biological diversity of inland water ecosystems.

E4. Contracting Parties and development assistance agencies are requested to make long-term financial commitments to support the operations of the Ramsar Small Grants Fund for Wetland Conservation and Wise Use (SGF) (Resolution VII.5).

E5. Contracting Parties should also ensure that for their bilateral donor agencies there is appropriate monitoring of expenditures which will allow them to indicate to the 8th Conference of the Contracting Parties the level, type, and effectiveness of assistance provided to developing countries in meeting their Ramsar obligations.

E6. In order to ensure that wetland issues are appropriately considered within sectoral strategies and the general programmes of the development assistance agencies, Contracting Parties are encouraged to undertake reviews to determine the extent to which the Ramsar wise use principles are adequately considered in the policies related to the agriculture, fisheries, water resources, forestry, transport and power generation sectors, and to seek the necessary additions or amendments to these policies.

E7. Through their bilateral assistance programmes, and involvements with multilateral programmes, Contracting Parties should also support projects which apply the wise use principles of the Convention through environmentally sound development activities in wetlands.

E8. As recognized by the *Guidelines for the implementation of the wise use concept*, it is important that Contracting Parties prepare a suitable national policy framework for implementing the Convention, and this should remain a priority for those countries seeking donor assistance. The formulation of wetland policies should also be an integral part of broader national planning related to social issues and economic development (Resolution VII.6).

E9. The Outreach Programme of the Ramsar Convention (Resolution VII.9) identifies the key decision-makers within the development assistance agencies as a priority target group, and Contracting Parties are urged to ensure that efforts are made to provide appropriate training and resource materials for these officials.

E10. There remains a need to raise the general awareness and understanding of wetland functions and values among the staff of the development assistance agencies. Actions encouraged include internal and external training programmes, enhanced

linkages with the Ramsar Administrative Authority within the country, and the inclusion of representatives of development assistance agencies in the delegations to meetings of the Conference of the Contracting Parties.

E11. Contracting Parties should continue to implement Recommendation 3.4 which agreed that development assistance agencies should seek to "*strengthen the institutional arrangements and the ecological expertise both at the national level and among regional development authorities in the project regions, in order to implement . . . policies and to train and educate personnel at project implementation level*".

E12. In order to increase the level of funds flowing to wetland-related projects, potential recipient countries are encouraged, as appropriate, to seek training opportunities for their personnel in order to provide them with the necessary technical and project development skills.

E13. Recipient countries are urged to seek resources from donors for the development of National Wetland Policies (or similar) and for implementing national communication, education and public awareness programmes for wetlands consistent with the Convention's Outreach Programme (Resolution VII.9). Both measures should serve to give wetland-related projects higher national priority for gaining funding assistance.

E14. Development assistance agencies should "*coordinate their programmes at the international level to ensure that their independent activities do not in combination adversely affect wetlands"* (Recommendation 3.4) and enhance cooperation with other development assistance agencies in sharing experiences and avoiding possible duplication of their activities in countries receiving assistance.

E15. Contracting Parties are encouraged to develop a formal mechanism for consultations between their development assistance agency and the Ramsar Administrative Authority, and to ensure that National Ramsar Committees, where they exist, include a representative of the development assistance agency.

§2.6 Sustainable harvesting and international trade in wetland-derived plant and animal products

53. The Ramsar Convention promotes the conservation and wise (sustainable) use of wetlands, and this includes the harvesting of plant and animal products from these wetlands. At the local scale, such harvesting at Ramsar-listed sites should be regulated by a management plan developed in close consultation with the stakeholders (Recommendation 6.13). Article 3.1 of the Convention also urges that Contracting Parties promote "*as far as possible the wise use of wetlands in their territory*".

54. In terms of international cooperation under the Convention, trade in plant and animal products derived from wetlands which extend beyond national boundaries should therefore also be regulated to ensure that harvesting is being done in a sustainable way. If such harvesting is taking place at a Ramsar-listed site, then the Contracting Party has a clear obligation to ensure that the impact of the harvesting will not threaten or alter the

ecological character of the site. This applies especially for transboundary wetland sites, shared by two or more Contracting Parties.

§2.6.1 Harvesting controls and monitoring

55. Wetlands, as highly productive ecosystems, have always been exploited for their natural products. Through its Wise Use concept the Ramsar Convention recognizes that such harvesting will continue and seeks to ensure that it is done in such a way that the resource can be available to sustain future generations. There are several ways that Contracting Parties can seek to ensure that the harvesting of wetland-derived plant and animal products is sustainable. The special case of trade in protected or endangered species is considered below, but for other species Contracting Parties are encouraged to monitor international trade and, where it involves wetland-derived species, to implement the necessary legal, institutional and administrative measures to require that harvesting is biologically sustainable. In some instances, it may even be desirable to have mechanisms in place which direct resources from the trade in these products back to wetland conservation and wise use. Management plans for the sites where these products originate, as well as scientifically-based Species Management Plans, are also strongly encouraged.

56. Ramsar Contracting Parties also have a responsibility to ensure that wetland-derived plant and animal products being imported into their territory from another Contracting Party are being harvested sustainably, especially where these involve species listed under the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) - see below. The act of poaching by the nationals of one Contracting Party within the territory of another Contracting Party is counter to the spirit of Article 5 of the Ramsar Convention.

57. There are many complex issues associated with this area which are not dealt with in detail here, such as access to and ownership of genetic resources, and bioprospecting. Contracting Parties are urged to consult with the relevant focal points within their countries on these matters in developing an appropriate national response to the issues of international trade in wetland-derived products.

§2.6.2 Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)

58. Where Contracting Parties of the Ramsar Convention are also Contracting Parties of CITES, they have responsibilities under that Convention to ensure that international trade in endangered or potentially endangered plant and animal species, and certain derivatives from them, are regulated and monitored. Where this applies to species derived from wetlands, Contracting Parties to both Conventions have a dual obligation to take the necessary action to guarantee that the harvesting is sustainable and in accordance with CITES rules. Under the Ramsar definition of a wetland, this would apply to animal species such as crocodiles, freshwater and marine turtles (although none can be traded commercially), fish, corals, a large number of wetland-derived plants with medicinal values, and some peat forest timbers.

59. For species listed on the CITES Appendix I, no international trade is permitted, and for those in Appendix II Contracting Parties are required to prepare scientifically-based

Species Management Plans and to regulate and monitor trade in these products through legislative and administrative means.

Section F

Guidelines related to trade in wetland derived products

F1. Contracting Parties are urged to review all international trade in wetland-derived plant and animal products, both exports and imports, and as appropriate to implement the necessary legal, institutional and administrative measures to require that harvesting is sustainable and in accordance with the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) and other relevant local regulations and international agreements.

F2. Contracting Parties to the Ramsar Convention which are also Contracting Parties to CITES are urged to review their international trade in wetland-derived products, and as necessary to seek the listing of these species under the appropriate Appendix of CITES.

F3. For wetland-derived species that are already listed under CITES, Contracting Parties should be vigilant in meeting their obligations under CITES for these species and report violations of these obligations to the Ramsar Bureau.

F4. Where such species are being harvested at Ramsar and other wetland sites, Contracting Parties are encouraged to consider these activities within the development of management plans for these, possibly integrating them with the Species Management Plans encouraged by CITES.

F5. Administrative Authorities of the Ramsar Convention should establish a cooperative working arrangement with their CITES equivalent (both scientific and management authorities) and seek to work together in pursuing the above actions.

F6. In developing an appropriate national response to the issues of international trade in wetland-derived products, in addition to consultation with the CITES authorities, Ramsar Administrative Authorities are also urged to consult with the relevant focal points for the Convention on Biological Diversity, and in particular those officials involved with issues such as biotrade, sustainable use of genetic resources and bioprospecting.

F7. Noting the adoption of *Guidelines for the development and implementation of National Wetland Polices* (Resolution VII.6) and *Guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands* (Resolution VII.7), Contracting Parties are urged to ensure that issues of international trade in wetland-derived products are considered through these processes.

§2.7 Regulation of foreign investment to ensure wetland conservation and wise use

60. The regulation of foreign investment is clearly a sovereign right and an issue of self-determination which must be respected by the Ramsar Convention. Through these

Guidelines on International Cooperation, the Convention does not seek to restrain such investments or inhibit economic development, simply to provide advice to Contracting Parties which will assist them to avoid activities supported by foreign investments which are counter to their obligations under the Convention. It is also important to note the potential which exists for Contracting Parties to regulate foreign investment in ways that ensure that it contributes in a positive way to the long-term sustainability of the wetland resource being utilised (see §2.7.2 below).

§*2.7.1 Impact assessment*

61. Foreign investments in many countries are closely regulated by law, while in others this is not the case. Where foreign investments support actions that can impact on wetlands, Contracting Parties have a clear obligation to require rigorous assessment (environmental, economic and social) of the potential impacts of these, just as they would for domestically funded activities.

62. Under the Ramsar Convention, Contracting Parties are encouraged to have in place suitable impact assessment practices which can work to avoid wetland destruction or degradation from development proposals. Where such practices are not in place, their introduction should be a high priority. Administratively, it is also essential that development proposals, whether totally domestically funded, partly domestically funded, or totally foreign investment, are subjected to impact assessment.

§*2.7.2 Codes of Conduct for foreign interests and financial measures*

63. In some countries, members of the business sector have adopted voluntary Codes of Conduct which also apply to their foreign investment activities. These are promoted by organizations such as the World Business Council for Sustainable Development, and the Ramsar Convention should strongly endorse and promote this responsible attitude by some sectors which have in the past gained a reputation for wetland destruction. Contracting Parties need to give much greater emphasis to this aspect of foreign investment, and even to expect that investors will have such Codes of Conduct and be able to demonstrate their credentials as proponents of ecologically sustainable development activities. The Ramsar Bureau is requested to gather and disseminate models of such Codes of Conduct to all Contracting Parties for their consideration.

64. As indicated above, some countries now require of their foreign investors (and in some cases the domestic ones as well) the payment of environmental bonds or other similar endowments which support activities directed at the long-term sustainability of the resource being utilised. For example, a foreign investor may be expected as part of the conditions of approval for a wetland-related development to establish and help maintain a community education facility which can serve as a centre for training wetland managers, raising awareness about wetland values, and also generate local economic benefits for the community through tourism, etc. Under such schemes, however, there need to be safeguards in place to ensure that locally-based agents of foreign investors are not bypassing such requirements.

Section G

Guidelines related to foreign investment

G1. Contracting Parties are urged to have in place suitable impact assessment practices which can work to avoid wetland destruction or degradation from development proposals. Administratively, it is also essential that development proposals be subjected to rigorous impact assessment which considers the full range, environmental, economic and social, of possible impacts (Resolution VII.16).

G2. For foreign investors, Contracting Parties should seek to promote and encourage the concept of Codes of Conduct which are designed to ensure the development activities of these companies are ecologically sustainable. To support this, the Ramsar Bureau is requested to gather and disseminate suitable model Codes of Conduct.

G3. Contracting Parties should also examine their development approval processes and consider the introduction of mechanisms which will result in resources derived from development activities being directed back to hands-on wetlands management or other activities which will ensure the long term sustainability of the site.

Resolution VII.20

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Priorities for wetland inventory

1. RECALLING Recommendation 1.5 which called upon Contracting Parties to prepare inventories of their wetlands "*as an aid to the formulation and implementation of national wetland policies*" to assist in promoting the wise use of wetlands in their territory;

2. RECALLING ALSO Recommendation 4.6, Resolutions 5.3 and VI.12, and Action 6.1.2 of the Strategic Plan 1997-2002 which recognised the value of national scientific inventories for identifying sites suitable for inclusion in the List of Wetlands of International Importance (Ramsar List) under the Convention;

3. AWARE of Action 6.1.3 of the Strategic Plan 1997-2002 which calls upon the Ramsar Bureau and the International Organization Partners to "*utilize information from regional wetland directories, national scientific inventories of wetlands and other sources, to begin development of a quantification of global wetland resources, as baseline information for considering trends in wetland conservation or loss*";

4. NOTING the report entitled *Global review of wetland resources and priorities for wetland inventory* and its recommendations as prepared and presented by Wetlands International to Technical Session IV of this Conference, in response to Action 6.1.3 of the Strategic Plan 1997-2002;

5. APPRECIATIVE of the financial support provided for the preparation of the above report by the Governments of the Netherlands, Norway, and the United Kingdom;

6. NOTING WITH CONCERN the findings of the Wetlands International report that, based on the information gathered within the constraints of this project, few countries, if any, have comprehensive national inventories of their wetland resources, and that it is therefore not possible to provide a baseline of the world's wetland resources with any confidence;

7. RECOGNIZING the priorities for future wetland inventory, both in terms of types and regions, as identified in the report and endorsed by the Second International Conference on Wetlands and Development (Dakar, Senegal, November 1998);

8. CONSIDERING that this Conference has also adopted *Guidelines for developing and implementing National Wetlands Policies* (Resolution VII.6), the *Wetland Risk Assessment Framework* (Resolution VII.10), the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11), and Resolution VII.17 on *Restoration as an element of national planning for wetland conservation and wise use*, all of which, as

noted by the previous Resolutions and Recommendations referred to in paragraphs 1 and 2 above, would be greatly assisted by the availability of national scientific inventories;

9. TAKING ACCOUNT of the findings given in the report prepared by the World Conservation Monitoring Centre and presented to COP7 Technical Session IV entitled *Shared wetlands and river basins of the world*; and

10. NOTING the scope of the proposed Millenium Assessment of the World's Ecosystems, currently under development, to deliver valuable related information of relevance to the application of the Convention;

THE CONFERENCE OF THE CONTRACTING PARTIES

11. URGES all Contracting Parties yet to complete comprehensive national inventories of their wetland resources, including, where possible, wetland losses and wetlands with potential for restoration (Resolution VII.17), to give highest priority in the next triennium to the compilation of comprehensive national inventories, in order for related actions such as policy development and Ramsar site designations to be carried out with the best information possible;

12. FURTHER URGES that in undertaking inventory activities Contracting Parties give consideration to affording highest priority to those wetland types identified as at greatest risk or with poorest information in the *Global review of wetland resources and priorities for wetland inventory* report;

13. REQUESTS Contracting Parties to give consideration in their inventory activities to adopting a suitable standardised protocol for data gathering and handling, such as that provided by the Mediterranean Wetlands Initiative (MedWet), and the use of standardised low-cost and user-friendly Geographic Information System methods;

14. ENCOURAGES Contracting Parties with shared wetlands or river basins to work cooperatively in the gathering of inventory and related management information, as urged through the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19);

15. REQUESTS the Scientific and Technical Review Panel, in collaboration with Wetlands International, the Ramsar Bureau, and other interested organizations, to review and further develop existing models for wetland inventory and data management, including the use of remote sensing and low-cost and user-friendly geographic information systems, and to report their findings to the 8th Meeting of the Contracting Parties with a view to promoting international common standards;

16. CALLS UPON Contracting Parties to review the arrangements they have in place for housing and maintaining their wetland inventory data where it exists, and, as necessary, to seek to establish a central repository or to ensure that access to this information resource is possible for all decision-makers, stakeholders and other interested parties, where possible through the World Wide Web and CD-ROM formats;

17. ALSO ENCOURAGES Contracting Parties and other interested organizations and funding bodies to provide the resources to allow Wetlands International to complete and

document suitable standardised protocols for data gathering and handling as well as a comprehensive assessment of wetland inventory information, and to develop procedures for regularly updating this information and making it readily available through the World Wide Web and CD-ROM formats;

18. FURTHER CALLS UPON the bilateral and multilateral donors to give priority to supporting the wetland inventory projects submitted by developing countries and those in economic transition, noting, as urged above, the desirability of such projects being undertaken; and

19. DIRECTS the Standing Committee to give special attention to appropriate wetland inventory projects in its consideration of projects submitted to the Ramsar Small Grants Fund.

Resolution VII.21

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Enhancing the conservation and wise use of intertidal wetlands

1. RECOGNISING the critical economic, social and environmental values of intertidal wetlands, including tidal flats, salt marsh, mangrove and seagrass beds, especially for fisheries, biodiversity, coastal protection, recreation, education, and in relation to water quality;

2. AWARE that the livelihood of substantial numbers of people around the world depend on the productivity and values of intertidal wetlands;

3. CONCERNED that a large proportion of intertidal wetlands and their values have already been lost or degraded, notably due to reclamation, unsustainable aquaculture, and pollution, and that, in some regions, the scale of reclamation continues to increase;

4. NOTING that there is growing scientific evidence of, and awareness by, local communities of the productivity and values of intertidal wetlands, in particular of tidal flats, and that the experiences and expertise in dealing with the conservation and wise use of intertidal wetlands at local and national levels is rapidly increasing;

5. FURTHER NOTING that there are not adequate mechanisms at the global level to share and benefit from these experiences and this expertise;

6. RECALLING Recommendation 5.1, which "*calls on Contracting Parties along the East Asia flyway to designate additional wetlands for the Ramsar List, and in particular to designate additional intertidal wetlands*"; and NOTING that yet these wetlands are still under-represented in the List of Wetlands of International Importance;

7. FURTHER RECALLING Recommendation 6.4, which urges countries to work together in the area of information exchange in order to contribute to the long-term conservation of migratory waterbirds and their habitats; and noting that many such migratory waterbird populations dependent upon intertidal wetlands are globally threatened yet remain poorly represented on existing Ramsar sites;

8. DRAWING ATTENTION TO Recommendation 7.3 of this Conference which calls upon Contracting Parties to support the development of a multilateral agreement to provide a long-term conservation framework for migratory waterbirds and their habitats which is inclusive of all Asia-Pacific countries;

9. NOTING that Recommendation 6.7 urges Contracting Parties to designate suitable areas of their coral reefs and associated ecosystems, including mangrove forests and seagrass beds, for inclusion in the List of Wetlands of International Importance; and

10. FURTHER NOTING that Recommendation 6.8 on Strategic Planning in Coastal Zones calls for sound decision-making on the conservation and wise use of coastal wetlands and other key environmental components;

THE CONFERENCE OF THE CONTRACTING PARTIES

11. CALLS upon Contracting Parties to document the extent of loss of intertidal wetlands that has occurred in the past and to inventory those intertidal wetlands which remain, and their conservation status;

12. REQUESTS Contracting Parties, in collaboration with the Ramsar Bureau, International Organization Partners, and relevant groups, to develop initiatives which enable dissemination of information on the extent of loss of intertidal wetland area and its impacts, and on alternative development strategies for remaining intertidal areas that assist in maintaining their ecological character;

13. URGES Contracting Parties to review and modify existing policies that adversely affect intertidal wetlands, to seek to introduce measures for the long-term conservation of these areas, and to provide advice on the success, or otherwise, of these actions in their National Reports to Ramsar COP8;

14. FURTHER URGES Contracting Parties to identify and designate as Wetlands of International Importance a greater number and area of intertidal wetlands, especially tidal flats, giving priority to those sites which are important to indigenous people and local communities, and those holding globally threatened wetland species, as encouraged by Resolution VII.11; and

15. ALSO URGES all Contracting Parties to suspend the promotion, creation of new facilities, and expansion of unsustainable aquaculture activities harmful to coastal wetlands until such time as assessments of the environmental and social impact of such activities, together with appropriate studies, identify measures aimed at establishing a sustainable system of aquaculture that is in harmony both with the environment and with local communities.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Collaborative structure for Mediterranean wetlands

1. TAKING INTO ACCOUNT eight years of collaborative efforts in favour of Mediterranean wetlands, within the framework of the Convention on Wetlands, and more specifically:

   a) the launching in 1991 of a concerted effort for the conservation and wise use of Mediterranean wetlands under the name 'Mediterranean Wetlands Initiative' (MedWet) as a joint effort of the Ramsar Bureau, the European Commission (EC), the Italian Government, the International Waterfowl and Wetlands Research Bureau (now Wetlands International), the Station Biologique de la Tour du Valat (France), and the World Wide Fund For Nature (WWF);

   b) the implementation of the MedWet1 project (1993-1996), funded to a large extent by the EC and encompassing France, Greece, Italy, Portugal and Spain, during which methods and tools for wetland inventory and monitoring, management, application of research results, and public awareness were developed and tested;

   c) the implementation of the MedWet2 project (1996-1998), carried out in Albania, Algeria, Croatia, Morocco and Tunisia, funded also to a large extent by the EC and managed by the Ramsar Bureau, during which the MedWet approach was adapted to countries of the East and South of the region, and a new socio-economic approach to wetlands conservation and sustainable use was developed;

   d) the adoption of Recommendations 5.14 at Ramsar COP5 (Kushiro, 1993) and 6.11 at Ramsar COP6 (Brisbane, 1996) on the MedWet Initiative;

   e) the adoption of the Declaration of Venice and the endorsement of the Mediterranean Wetland Strategy by the Conference on Mediterranean Wetlands, organized by the Italian Government and the Ramsar Bureau in June 1996, within the framework of the MedWet1 project;

   f) Decision 19.19 of the Standing Committee of the Convention in October 1996 to establish the Mediterranean Wetlands Committee (MedWet/Com) within the framework of the Mediterranean Wetlands Initiative, consisting at present of 25 governments of the Mediterranean basin, the Palestinian Authority, the European Commission, the Barcelona and Bern Conventions, and six wetland centres and international NGOs;

g) the results of the first two meetings of the MedWet/Com held in Thessaloniki, Greece (March 1998) and Valencia, Spain (January 1999), hosted and financed by the Governments of these two countries;

h) the appointment in 1996 by the Secretary General of the Convention of a MedWet Coordinator and the establishment of a secretariat structure, with the financial support of the Governments of France and Greece (and since 1999, of the Government of Spain), as well as of the Station Biologique de la Tour du Valat (France) and WWF International; and

i) the launching of two further MedWet projects concerning ten Mediterranean countries, of which one is funded by the Global Environment Facility (GEF);

THE CONFERENCE OF THE CONTRACTING PARTIES

2. EXPRESSES ITS SATISFACTION at the work carried out so far under the Mediterranean Wetland Initiative and ITS APPRECIATION to the governments and institutions, in particular the European Commission, that have provided financial support to the Initiative; and RECOGNISES it as a model of regional collaboration, based on endogenous efforts and a wide participation of all sectors;

3. APPROVES the establishment of the Mediterranean Wetlands Committee (MedWet/Com) within the framework of the Convention, as a forum for collaboration on wetland issues in the Mediterranean and as an advisor to the Convention in this region;

4. ENDORSES the Mediterranean Wetland Strategy and the Venice Declaration, which implement the Ramsar Strategic Plan in the region, as the guiding documents for efforts in the Mediterranean;

5. ENTRUSTS the Mediterranean Wetlands Committee with the task of monitoring the implementation of this Strategy and Declaration, and of adapting them to changing conditions;

6. ENCOURAGES the Contracting Parties around the Mediterranean to use and further develop the methodological tools elaborated under the MedWet1 and MedWet2 projects, with a view to encouraging integrated and sustainable management of wetlands in the region;

7. INVITES Contracting Parties in other regions, with the assistance of the Ramsar Bureau, to consider using relevant MedWet tools, in particular, as requested in Resolution VII.20, the methodology and database for collecting, managing and storing inventory data on wetlands; and URGES countries and organizations involved in the MedWet Initiative to provide technical and financial assistance to other countries for this purpose;

8. ENDORSES the actions taken by the Secretary General of the Convention to establish and supervise a MedWet Team, consisting of a Coordinator and secretarial units, supported financially by voluntary contributions of governments and organizations in the region and elsewhere;

9. URGES Contracting Parties and institutions, in particular the European Commission, to continue providing financial support to the MedWet Initiative, in particular for its work in the developing countries and entities of the Mediterranean region; and

10. ENDORSES the initiative for the establishment of a North African Wetland Centre, and URGES Contracting Parties and institutions to contribute financial support for it.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Issues concerning the boundary definitions of Ramsar sites and compensation of wetland habitats

1. AWARE that Article 2.1 of the Convention obliges Contracting Parties to describe precisely and delimit on a map the boundaries of the wetlands designated for inclusion in the List of Wetlands of International Importance, and RECALLING Resolution 5.3 which recognized that some wetlands were designated for the List before any criteria or information recording system had been developed under the Convention;

2. ALSO RECALLING Article 2.5 which states that "*any Contracting Party shall have the right . . . because of its urgent national interests, to delete or restrict the boundaries of wetlands already included by it in the List*", and Article 4.2 which states that "*where a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources, and in particular it should create additional nature reserves for waterfowl and for the protection, either in the same area or elsewhere, of an adequate portion of the original habitat*";

3. CONSCIOUS that the Conference of the Contracting Parties does not wish to encourage the deletion or restriction of the boundaries of Listed sites, preferring to see all feasible alternatives examined through rigorous and transparent assessments, in consultation with all stakeholders, before Contracting Parties exercise their right to take such action;

4. NOTING that at present there is no guidance provided by the Convention to assist Contracting Parties considering the deletion or restriction of the boundaries of a Ramsar site to establish a true and internationally acceptable case of urgent national interest, and thereafter how to meet their obligations under Article 4.2 in terms of listing suitable compensatory habitat;

5. RECOGNIZING that some Contracting Parties have extensive case law relating to aspects of the determination of urgent national interest, habitat compensation and mitigation;

6. NOTING ALSO the advances in technology which have allowed for a higher resolution of site boundaries than previously available, and the continuing increase in both quantity and quality of data available for Ramsar sites which increases our understanding of their ecological character; and

7. NOTING Resolution VII.24 which addresses the need for compensation for lost wetland habitats and other functions;

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8. RECOGNIZES that there are situations, other than the urgent national interest provision of Article 2.5 of the Convention text, where Ramsar site boundaries may warrant further definition, for example, where boundaries were erroneously or inaccurately defined at the time of listing;

9. REQUESTS the Standing Committee to develop and propose to the 8th Meeting of the Conference of the Contracting Parties (COP8) a procedure for the review of Ramsar site boundaries for reasons other than urgent national interest, without prejudice to other international obligations;

10. RECOGNIZES that Australia will prepare two case studies (as referred to in Resolution VII.12) for the development of a more generalized approach to the revision of Ramsar site boundaries in cases other than the urgent national interest, and will provide the outcomes of these case studies in time for consideration at COP8;

11. REQUESTS the Standing Committee, with support from the Bureau, and in consultation with the Scientific and Technical Review Panel (STRP), experts familiar with the Habitats Directive of the European Union, appropriate legal and other experts, and interested Contracting Parties, to develop for consideration and possible adoption at COP8 guidance for the Contracting Parties in interpreting Articles 2.5 and 4.2, if resources allow;

12. CALLS UPON any Contracting Parties that consider the deletion or restriction of the boundaries of a Ramsar site in the urgent national interest prior to COP8, to exercise the highest levels of environmental, economic and social impact assessment which take into consideration the full range of functions, services and benefits offered by the wetland; and

13. URGES those Contracting Parties or organizations with experience in issues of urgent national interest or similar determinations and habitat compensation and mitigation issues to provide any relevant information and materials to the Ramsar Bureau for consideration by the Standing Committee by no later than 30 September 1999.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Compensation for lost wetland habitats and other functions

1. NOTING that the total area of natural wetlands in many countries is still declining;

2. CONCERNED that a further loss of wetland habitats could adversely affect biodiversity and other functions such as water quality, flood control and other benefits on the national or international scale;

3. RECALLING Article 3.1 of the Convention, which urges Contracting Parties to "*formulate and implement their planning so as to promote the conservation of the wetlands included in the List and as far as possible the wise use of wetlands in their territory*";

4. ALSO RECALLING the Kushiro Statement (Resolution 5.1) on the *Framework for the implementation of the Ramsar Convention* which includes the commitment of the Contracting Parties to restore degraded wetlands and to compensate for wetland losses;

5. NOTING that effective wetland protection involves the conservation of wetlands as a first choice within a three-step mitigation sequence, including avoidance, minimization, and compensation, the latter only as a last resort;

6. RECALLING Recommendation 6.2 which calls upon Contracting Parties to integrate an environmental impact assessment into planning decisions in order to determine if a proposed plan or project is compatible with the wise use concept as defined in Recommendation 3.3 and in the *Guidelines for the implementation of the wise use concept* (Recommendation 4.10 and Resolution 5.6);

7. NOTING that Member States of the European Union, according to the Habitats Directive (92/43/EEC of May 1992), shall take all compensatory measures to ensure that the overall coherence of Natura 2000 is protected when for imperative reasons of overriding public interest and in the absence of alternatives, a plan or project must be carried out in spite of a negative assessment;

8. NOTING that the United States of America, according to the provisions of its Clean Water Act and a stated policy of no overall net loss of wetland functions and values, shall take all practicable measures to compensate for unavoidable wetland loss; and

9. RECALLING Recommendation 6.15 on restoration of wetlands, which could play a prominent role to compensate for loss of natural wetlands;

THE CONFERENCE OF THE CONTRACTING PARTIES

10. URGES the Contracting Parties to take all practicable measures for compensating any loss of wetland functions, attributes and values, both in quality and surface area, caused by human activities;

11. CALLS UPON Contracting Parties to integrate rules for compensation of wetland loss into their national policies on land and water planning;

12. ALSO CALLS UPON Contracting Parties to incorporate a preference for compensating for wetland loss with wetlands of a similar type and in the same local water catchment; and

13. INVITES the Standing Committee to define, in cooperation with the Scientific and Technical Review Panel and the Ramsar Bureau, and in consultation with the International Organization Partners, criteria and guidelines for the compensation of wetland habitats in the case of unavoidable losses and to submit these for the approval of COP8.

Resolution VII.25

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Measuring environmental quality in wetlands

1. RECOGNIZING that the capacity of the aquatic environment to support wetland ecosystems and associated ecological processes can be seriously decreased by the discharge of waste from human activities in urban, industrial and rural environments, both directly at a specific point and in cases of seepage or indirect contamination;

2. OBSERVING that a) there are important gaps in knowledge about the effect of the anthropogenic alteration of water quality on the ecological processes associated with the aquatic biotopes in wetlands; b) that these gaps in knowledge originate from a lack of unifying criteria for establishing reliable protocols and methods; and c) that this situation is also common in the study and description of indicative and significant biological, physical and chemical parameters, primarily from the point of view of their technical validity and the legal and administrative effectiveness of the procedure used for sampling water, sediments and indicator organisms;

3. NOTING that methods of sampling and analysis are often insufficiently harmonized in order to take into account the legal aspects and administrative procedures that can provide legal effectiveness in harmony with existing regulations;

4. ALSO NOTING that Recommendation 6.14 of Ramsar COP6: a) acknowledges the harmful effects that dangerous or biologically accumulative chemical substances have on wetland ecosystems when added to the water; and b) encourages the Parties to increase and harmonize study programmes in this field, making it possible to develop methods for monitoring and regulating the ecological quality of water from the point of view of biological, physical and chemical parameters; and

5. CONSCIOUS that Recommendation 6.14 requests the Scientific and Technical Review Panel (STRP) to take up the question of the effect of toxic products in wetlands;

THE CONFERENCE OF THE CONTRACTING PARTIES

6. REQUESTS the Contracting Parties to intensify studies on the presence and significance of toxic substances in the water, sediments and biota of wetlands;

7. AUTHORIZES the STRP, in collaboration with appropriate international bodies, to compile and disseminate reliable criteria and methods for the evaluation of the ecological quality of wetlands through the establishment of indicative biological, physical and chemical parameters;

8. REITERATES that the proper measurement and interpretation of indicative parameters of the quality of the aquatic environment in wetlands require the development and testing of universal protocols for the biological, physical and chemical sampling and analysis of water, sediments and organisms associated with these environments;

9. INVITES the Contracting Parties to promote the use of methods of sampling and analysis which have been shown, by rigorous testing, to be capable of providing results with the accuracy and precision appropriate to the quality of the intended evaluation, through the preparation, publication and distribution of recommendations in the form of clear and concise technical norms, so that qualified scientists and technicians can apply them correctly. At the same time, these norms should play an educational role in the training of specialized personnel in the study, administration and management of wetlands; and

10. URGES the Contracting Parties to keep these methods under review and encourage necessary improvements by representative organizations and institutions active in the scientific, technical, academic, administrative and legal aspects of wetland conservation. It is desirable that these reviews and improvements should involve several countries, in order to maximise the benefit and dissemination of the work.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Creation of a Regional Ramsar Centre for Training and Research on Wetlands in the Western Hemisphere

1. RECOGNIZING that Article 4.5 of the Convention provides that "*the Contracting Parties should promote the training of scientists for the study, management and conservation of wetlands*";

2. REFERRING to Recommendation 6.5 and 6.6 on both the establishment of training programmes and the strengthening of the management of the Convention, through liaison points in the Regions;

3. ALSO RECOGNIZING that research, training and the creation of mechanisms for cooperation and coordination are a priority in the Western Hemisphere in order to fulfil the objectives of the Strategic Plan 1997-2002 of the Convention;

4. AWARE of the existence of other training programmes for managers and specialists in the field of wetlands in the Western Hemisphere;

5. TAKING INTO ACCOUNT the offer of the Government of the Republic of Panama to create a Regional Ramsar Centre at the site of the City of Knowledge ("Ciudad del Saber") and WITH REFERENCE to the support expressed for this initiative by the Standing Committee of the Convention at its 21st meeting;

6. ALSO TAKING INTO ACCOUNT the support for this initiative expressed by the Contracting Parties in the Western Hemisphere, during the Ramsar Pan-American Meeting, held in San José, Costa Rica, in June 1998;

7. GRATEFULLY ACKNOWLEDGING the technical support offered by the Regional Office for Mesoamerica of IUCN-The World Conservation Union (IUCN-ORMA) and other organizations participating in this initiative;

THE CONFERENCE OF THE CONTRACTING PARTIES

8. EXPRESSES ITS APPROVAL of the initiative of the Government of Panama offering to establish a Regional Ramsar Centre for Training and Research on Wetlands in the Western Hemisphere within the activities at the site of the "Ciudad del Saber";

9. ENCOURAGES the Government of Panama to continue the process of planning for and creating the Centre, with the participation of the Ramsar Contracting Parties in the Western Hemisphere and interested organizations through permanent mechanisms of consultation;

10. REQUESTS the Ramsar Bureau to give its support to the Government of Panama in the study of the technical and operational aspects for the development of the Centre and its management; and

11. ENCOURAGES the Contracting Parties to provide support to the Centre and to participate in its development, taking into account the potential that it represents for creating exchange programmes, cooperation and other complementary activities related to wetlands.

Resolution VII.27

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

The Convention Work Plan 2000-2002

1. RECALLING Resolution VI.14 which adopted the Strategic Plan 1997-2002 of the Convention and NOTING that Contracting Parties were requested to submit National Reports for this Conference using the same format;

2. EXPRESSING APPRECIATION to the 107 Contracting Parties that submitted their National Reports for this Conference, and URGING the remaining Parties to do so as a matter of priority;

3. EXPRESSING SATISFACTION that the format of the National Reports adopted for this Conference permitted a more structured and in-depth analysis of the implementation of the Convention; and TAKING NOTE of the recommendations made by the Secretary General in his report to this Conference to further improve the format of the National Reports;

4. NOTING the content of the Regional Overviews of the implementation of the Convention, and the Reports of the Chairpersons of the Standing Committee and of the Scientific and Technical Review Panel (STRP), and the Report of the Secretary General;

5. NOTING WITH SATISFACTION the progress made in the implementation of the Strategic Plan 1997-2002, in particular in the areas of new members, legislative reviews, policy formulation, environmental impact assessment, restoration, involvement of local people, management planning at Ramsar sites, and synergy with other conventions at the global level;

6. CONCERNED that the application of the Strategic Plan 1997-2002 has been uneven in the Contracting Parties and that only slow progress has been made, globally, in relation to some of its General Objectives, in particular in relation to the application of economic valuation methods, private sector involvement, introduction of wetlands into formal education programmes, establishment of National Ramsar/ Wetland Committees, training, Ramsar site designations, national inventories, Ramsar site twinnings and designation of transboundary Ramsar sites, harmonised implementation of environment conventions at the national level, the ongoing level of support for the Small Grants Fund, and liaison between Ramsar focal points and their bilateral development assistance agencies;.

7. CONVINCED that for an effective implementation of the Strategic Plan 1997-2002 in the next triennium it will be useful to establish more precise targets for a range of appropriate actions in order to encourage more significant results in some areas;

8. WELCOMING the proposal to approve a Work Plan for the next triennium based in the Strategic Plan 1997-2002 that involves the Convention as a whole, including the Contracting Parties, the COP subsidiary bodies, the Ramsar Bureau and the International Organization Partners;

THE CONFERENCE OF THE PARTIES

9. APPROVES the Convention's Work Plan for the 2000-2002 triennium as attached in Annex I, noting that the Standing Committee in its annual approval of the Ramsar Bureau's Work Plan may have to establish an order of priority for the many actions expected of the secretariat;

10. INVITES the International Organization Partners of the Convention and other relevant intergovernmental and non-governmental institutions to continue to provide policy, technical and financial assistance to the Convention in order to ensure the effective implementation of the Work Plan 2000-2002;

11. ENDORSES the global targets for the Convention set under a range of themes in the Work Plan 2000-2002 and requests the Ramsar Bureau to prepare, based on the information contained in the COP7 National Reports and the Regional Overviews, regional targets for each for these same themes, for consideration and approval by the 24th meeting of the Standing Committee, and to disseminate these to all Contracting Parties for their information and consideration in guiding national and regional priority setting;

12. INVITES Contracting Parties to consider preparing and adopting by the end of 1999 "National targets for the Ramsar Strategic Plan for the period 2000-2002" on the basis of consultative processes involving National Wetland/Ramsar Committees, or similar bodies, and taking into consideration those targets set in the Convention Work Plan 2000-2002 and the subsequently determined regional targets;

13. REQUESTS the Standing Committee, at its 24th meeting, to review the National Report format used for COP7 and to introduce appropriate changes with a view to making the Ramsar COP8 format available in early 2000, so that Contracting Parties wishing to apply this framework can establish and maintain at the earliest opportunity an ongoing record of implementation for national planning and reporting purpose;

14. URGES all Contracting Parties to undertake the preparation of their National Reports for Ramsar COP8 in consultation with their National Ramsar/Wetland Committees, where they exist, and also with all other relevant Government Ministries;

15. REITERATES its encouragement, as expressed through Actions 8.1.9 and 8.1.10, for Contracting Parties to establish National Ramsar/Wetland Committees and to constitute these with appropriate representation from government and non-governmental stakeholders;

16. REQUESTS the Ramsar Bureau to prepare for consideration at Ramsar COP8 a detailed review of the membership, terms of reference and operations of National Ramsar/ Wetland Committees, so that Contracting Parties may benefit form each others' experiences in this area;

17. URGES Contracting Parties, pursuant to Action 8.1.10 of the Strategic Plan 1997-2002, to review their designated national Administrative Authority for the Convention to ensure these have the necessary resources to support the increasing demands being placed upon them by the growing expectations of the Convention;

18. ALSO ENCOURAGES Contracting Parties to review their internal processes and mechanisms for harmonising the implementation of international and regional conventions and agreements to which they are signatories, and to report on actions taken in this regard in their National Reports prepared for Ramsar COP8;

19. URGES the Ramsar Bureau, as resources allow, to continue its efforts to assist and work with the bilateral and multilateral donors in mobilizing funds for development assistance projects relating to the conservation and wise use of wetlands and integrated river basin and coastal zone management; and CALLS UPON all Contracting Parties with bilateral development assistance agencies to ensure close collaboration with their Ramsar Administrative Authority to ensure that their obligations pursuant to Article 5 (Resolution VII.19) are met;

20. FURTHER URGES all Contracting Parties, and especially the member countries of the Standing Committee in each region, those with neighboring countries that are not yet Parties to the Ramsar Convention, and those that share the range area of wetland-dependent migratory species with non-Contracting Parties, to increase their efforts for achieving the goal of universal membership contained in General Objective 1 of the Strategic Plan by encouraging those countries to accede to the Convention, so that the target of 150 member States can be reached before Ramsar COP8 and the Convention can pursue its global mission more effectively;

21. GREATLY APPRECIATES the advice received during this Conference of the accession of Lebanon (the 115th Contracting Party) and the impending accession of Cuba;

22. INSTRUCTS the Standing Committee to prepare for consideration and adoption at Ramsar COP8 a revised Strategic Plan for the Convention to cover the period 2003-2008, in consultation with the Contracting Parties, International Organization Partners, other convention secretariats and relevant intergovernmental and non-governmental institutions.

Annex

Ramsar Convention Work Plan 2000-2002

Abbreviations

Bureau	**Ramsar Convention secretariat**	**Partners**	**International Organization Partners** (presently BirdLife International, IUCN, Wetlands International, and WWF)
COP	**Conference of the Contracting Parties**		
CPs	**Contracting Parties**		
NRs	**National Reports**	**SC**	**Standing Committee**
NRC	**National Ramsar Committee**	**STRP**	**Scientific and Technical Review Panel**

GENERAL OBJECTIVE 1
TO PROGRESS TOWARDS UNIVERSAL MEMBERSHIP OF THE CONVENTION.

Operational Objective 1.1: To endeavour to secure at least 120 Contracting Parties to the Convention by 2002.

Actions	Progress, priorities and targets
1.1.1 Recruit new Contracting Parties, especially in the less well represented regions and among states with significant and/or transboundary wetland resources (including shared species), [CPs, SC regional representatives, Bureau, Partners]	• There are 115 Contracting Parties (CPs) as of COP7, representing 23 new CPs since COP6. In order of accession these are as follows: Democratic Republic of the Congo, Cote d'Ivoire, Gambia, Israel, Malawi, Botswana, Bahamas, Georgia, Republic of Korea, Nicaragua, Monaco, Jamaica, Bahrain, Mongolia, Syria, Luxembourg, Belize, Thailand, Congo, Colombia, Madagascar, El Salvador, and Lebanon. • The gaps remain in Africa, central Asia, the Middle East and the Small Island Developing States. Refer to Recommendation 7.2 relating to Small Island Developing States. • **Target** - 150 CPs by COP8
1.1.2 Promote membership of Ramsar through regional meetings and activities, and through partners' regional offices. [SC regional representatives, Bureau**,** Partners]	• The very significant number of new CPs since COP6 in part reflects the efforts of many countries, the Bureau and the International Organization Partners to promote membership. • These efforts are to continue and to focus on the above priority regions and the Small Island Developing States.

GENERAL OBJECTIVE 2
TO ACHIEVE THE WISE USE OF WETLANDS BY IMPLEMENTING AND FURTHER DEVELOPING THE RAMSAR WISE USE GUIDELINES.

Operational Objective 2.1: To review and, if necessary, amend national or supra-national (e.g., European Community) legislation, institutions and practices in all Contracting Parties, to ensure that the Wise Use Guidelines are applied.

Actions	Progress, priorities and targets
2.1.1 Carry out a review of legislation and practices, and indicate in National Reports to the COP how the Wise Use Guidelines are applied. [CPs]	• Globally, 45 CPs advised in their COP7 National Reports (NRs) that reviews of legislation had been undertaken and of these, 36 indicated that appropriate revisions and amendments had been made. The degree to which these reviews effectively apply to wetlands and promoting the objectives of the Convention has yet to established. • This remains a high priority for the next triennium. The *Guidelines for laws and institutions* (Resolution VII.7) will assist these efforts. • **Target** - At least 100 CPs to have comprehensively reviewed their laws and institutions related to wetlands by COP8.
2.1.2 Promote much greater efforts to develop national wetland policies, either separately or as a clearly identifiable component of other national conservation planning initiatives, such as National Environment Action Plans, National Biodiversity Strategies, or National Conservation Strategies. [CPs, Bureau**,** Partners]	• 22 CPs indicated that they had a National Wetland Policy/Strategy or Action Plan in place, a further 31 said these were being developed and 24 more advised that such instruments were planned for the near future. A more detailed analysis of this information is provided in Resolution VII.6 Annex. 91 CPs indicated that wetlands were considered in other national environment plans, but only 27 advised that this included water management plans or policies. • The development and implementation of National Wetland Policies continues to be one of the highest priorities of the Convention, as does the integration of wetland conservation and wise use into broader national environment and water policies. The *Guidelines for developing and implementing National Wetland Policies* (Resolution VII.6) will assist these efforts. • **Target** - By COP8 at least 100 CPs with National Wetland Policies or, where appropriate, a recognised document that harmonises all wetland-related policies/strategies and plans, and all CPs to have wetlands considered in national environmental and water policies and plans. The Guidelines for integrating wetland conservation and wise use into river basin management (Resolution VII.18) will assist these efforts.

Operational Objective 2.2: To integrate conservation and wise use of wetlands in all Contracting Parties into national, provincial and local planning and decision-making on land use, groundwater management, catchment/river basin and coastal zone planning, and all other environmental planning and management.

Actions	**Progress, priorities and targets**
2.2.1 Gather and make available to Contracting Parties information on land use planning related to wetlands, and catchment/river basin and coastal zone planning in particular. [Bureau]	• A partial response to this are the *Guidelines for integrating wetland conservation and wise use into river basin management* (Resolution VII.18). • **Target** - In the next triennium guidelines for integrating wetlands into coastal zone planning and management will be developed for consideration at COP8.
2.2.2 Promote the inclusion of wetlands in national, provincial and local land use planning documents and activities, and in all relevant sectoral and budgetary provisions. [CPs]	• 74 CPs reported that efforts had been made to have wetlands considered in integrated land/water and coastal zone planning and management processes. The degree to which such integrated approaches are proving effective has yet to be established. It is encouraging that a number of CPs (14) with federal systems of government indicate that wetland policies/strategies are being developed by their provincial administrations. • Achieving integrated and cross-sectoral approaches to managing wetlands within the broader landscape and within river basin/coastal zone plans is another of the Convention's highest priorities in the next triennium. • **Target** - By COP8 all CPs to be promoting, and actively implementing, the management of wetlands as integrated elements of river basins and coastal zones, and to provide detailed information on the outcomes of these actions in the National Reports for COP8.

Operational Objective 2.3: To expand the Guidelines and Additional Guidance to provide advice to Contracting Parties on specific issues not hitherto covered, and examples of best current practice.

Actions	Progress, priorities and targets
2.3.1 Expand the Additional Guidance on Wise Use to address specific issues such as oil spill prevention and clean-up, agricultural runoff, and urban/industrial discharges in cooperation with other bodies. [CPs, STRP, Bureau, Partners]	• The programme for COP7 was designed to provide such guidance on a range of priority issues. It included a review of the impact of invasive species on wetlands and recommends a range of actions for the Convention to pursue (Resolution VII.14). • **Target** - Following COP7, the Bureau, with other appropriate collaborators, will produce a series of Wise Use handbooks, based on the outcomes of Technical Sessions at COP7.
2.3.2. Publicize examples of effective application of existing Guidelines and Additional Guidance. [CPs, Bureau, Partners]	• 40 CPs advised that they had produced publications demonstrating some aspect of implementing Wise Use. It is disappointing that more of these publications were not provided to the Bureau for inclusion in the Wise Use Resource Centre of the Convention's Web site as launched on World Wetlands Day in 1998. • Promoting and improving the availability of such resource materials is a priority under the *Convention's Outreach Programme* (Resolution VII.9) • **Target** - By COP8 to have included in the Wise Use Centre 500 appropriate references and publications as provided to the Bureau by CPs and other organizations.

Operational Objective 2.4: To provide economic evaluations of the benefits and functions of wetlands for environmental planning purposes.

Actions	Progress, priorities and targets
2.4.1 Promote the development, wide dissemination and application of documents and methodologies which give economic evaluations of the benefits and functions of wetlands. [CPs, Bureau, Partners]	• Only 34 CPs indicated in their COP7 NRs that some actions had been taken to incorporate economic valuation techniques into natural resource planning and assessments relating to wetlands. • Given the guidelines available for this activity (see below), this will be an area of higher priority in the next triennium. • **Target** - By COP8 all CPs to be incorporating economic valuation of wetland services, functions and benefits into impact assessment and decision-making processes related to wetlands.
2.4.2 Publish, with the assistance of IUCN and other collaborators, information on economic evaluations of wetlands presented at the 6th COP. [Bureau, Partners]	• This was completed with the publication of the *Economic Valuation of Wetlands* book in 1997.
2.4.3 Initiate specific activities which implement the findings on economic evaluations published under 2.4.2 [CPs]	• See 2.4.1 above. Also, the Bureau has initiated a project, in collaboration with IUCN and supported by funds from the Swiss Government, in the countries of the Southern Africa Development Community on economic valuation of wetlands.

2.4.4 Review content and implementation of recommended best practice in economic evaluations of wetlands at a technical session of the 7th COP (1999). [STRP, Bureau, Partners]	• This did not gain sufficient support from CPs when surveyed for their priorities for the Technical Session themes for COP7. It has therefore been deferred until COP8. At COP7 economic valuation issues were considered as part of the discussions of incentives (Resolution VII.15) and impact assessment (Resolutions VII.16).

Operational Objective 2.5: To carry out environmental impact assessments (EIAs) at wetlands, particularly of proposed developments or changes in land/water use which have potential to affect them, notably at Ramsar sites, whose ecological character "is likely to change as the result of technological developments, pollution or other human interference" (Article 3.2 of the Convention).

Actions	Progress, priorities and targets
2.5.1 Expand the Additional Guidance on Wise Use by preparing, for a technical session at the 7th COP (1999), the results of a review of environmental appraisal guidelines and examples of current best practice in EIA. [SC, STRP, Bureau, Partners]	• These issues were considered at COP7 in Technical Session IV in the paper entitled "The Ramsar Convention and impact assessment - strategic, environmental and social". Refer to Resolution VII.16. • **Target** - In the next triennium, the development of further guidance in this area will be done in collaboration with CBD, CMS, IUCN and the International Association for Impact Assessment.
2.5.2 Ensure that, at Ramsar sites where change in ecological character is likely as a result of proposed developments or changes in land/water use which have potential to affect them, EIAs are carried out (with due consideration of economic evaluations of wetland benefits and functions), and that the resulting conclusions are communicated to the Ramsar Bureau and fully taken into account by the authorities concerned. [CPs]	• For COP7, 35 CPs reported 115 Ramsar sites where some change in ecological character had occurred or was likely to occur in the near future. Two CPs advised that changes had occurred to all or some of their sites. (Refer to Resolution VII.12.) While some CPs provided details, it is not possible to know if EIAs have been applied in all cases. • **Target** - In the next triennium, CPs will ensure that EIAs are applied to any such situation and keep the Bureau advised of the issues and the outcomes of these EIAs.
2.5.3 Carry out EIAs at other important sites, particularly where adverse impact on wetland resources is likely, due to a development proposal or change in land/water use. [CPs]	• 92 CPs indicated that EIAs for actions potentially impacting on wetlands are required under legislation. Assuming that this implies that the highest standards of EIA are being applied, and the full range of wetland functions and benefits are being appropriately taken into consideration, then this is a very encouraging advancement for the Convention. • **Target** - By COP8 all CPs to require EIAs under legislation for any actions which can potentially impact on wetlands and to provide detailed reports on advances in this area in their National Reports for COP8.

2.5.4 Take account of Integrated Environmental Management and Strategic Environmental Assessment (at local, provincial and catchment/river basin or coastal zone levels) when assessing impacts of development proposals or changes in land/water use. [CPs]	• Refer to 2.5.1 and 2.5.3 above.

Operational Objective 2.6: To identify wetlands in need of restoration and rehabilitation, and to implement the necessary measures.

Actions	Progress, priorities, and targets
2.6.1 Use regional or national scientific inventories of wetlands (Recommendation 4.6), or monitoring processes, to identify wetlands in need of restoration or rehabilitation. [CPs, Partners]	• At COP7, restoration and rehabilitation was reviewed in Technical Session II (Resolution VII.17). This review indicated that only a handful of CPs have undertaken inventories of their wetlands requiring restoration or rehabilitation. • The completion of such inventories is a continuing area of priority for the Convention. • **Target** - Restoration/rehabilitation inventories to be completed by at least 50 CPs by COP8.
2.6.2 Provide and implement methodologies for restoration and rehabilitation of lost or degraded wetlands. [CPs, STRP, Bureau, Partners]	• There is a considerable information resource on this subject although it is not as readily accessed as desirable. • **Target** - The addition of appropriate case studies and information on methodologies, etc., to the Convention's Wise Use Resource Centre (refer to 2.3.2 above also) will be a priority in the next triennium.
2.6.3 Establish wetland restoration / rehabilitation programmes at destroyed or degraded wetlands, especially in association with major river systems or areas of high nature conservation value (Recommendation 4.1). [CPs]	• 76 CPs reported in their NRs that wetland restoration or rehabilitation is being undertaken in their countries. It would seem that in many countries this is at the small, or even pilot project scale at present, although there are some major projects happening as well. • The Convention will continue to promote the restoration and rehabilitation of wetlands, particularly in situations where such actions will help promote or retain the 'health' and productivity of waterways and coastal environments. • **Target** - By COP8 all CPs to have identified their priority sites for restoration or rehabilitation and for projects to be under way in at least 100 CPs.
2.6.4 Organize at the 7th COP (1999) a technical session on restoration and rehabilitation, and identify ten best practice case studies at local, provincial and catchment levels. [STRP, Bureau, Partners]	• Refer to 2.6.1 and 2.6.2 above. • In addition, a number of the case studies assembled under other projects completed for COP7, such as *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8) include elements of restoration or rehabilitation and these will be published after the conference.

Operational Objective 2.7: To encourage active and informed participation of local communities, including indigenous people, and in particular women, in the conservation and wise use of wetlands.

Actions	Progress, priorities and targets
2.7.1 Implement Recommendation 6.3 on involving local and indigenous people in the management of wetlands. [CPs, Bureau]	• 72 CPs advised in their NRs that actions had been taken to encourage active and informed participation of local communities, including indigenous people and especially women, in the conservation and wise use of wetlands. The NRs provide clear evidence in many countries of local stakeholders mobilising to take responsibility for the sustainable use of their wetland resources. • At COP7, in Technical Session II, *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8) were considered. This project, undertaken by a number of NGOs and led by IUCN, was in response to Recommendation 6.3. • **Target** - In the next triennium, the implementation of the above Guidelines is to be one of the Convention's highest priorities. By COP8 all CPs to be promoting local stakeholder management of wetlands.
2.7.2 Encourage site managers and local communities to work in partnership at all levels to monitor the ecological character of wetlands, thus providing a better understanding of management needs and human impacts. [CPs]	• This was not a specific question posed in the NRs and so it is not possible to give a clear indication of the degree to which this is taking place. • The *Convention's Outreach Programme* (Resolution VII.9) seeks to give such community participation higher priority as an education and empowerment tool of the Convention.
2.7.3 Involve local communities in the management of wetlands by establishing wetland management committees, especially at Ramsar sites, on which local stakeholders, landowners, managers, developers and community interest groups, in particular women's groups, are represented. [CPs, Partners]	• The optional section of the COP7 NR format sought advice on the involvement of NGOs in various aspects of the Convention's work. 63 CPs answered the question about whether or not NGOs were part of Ramsar site management committees and 37 of these indicated that this was the case. It was not possible from the NRs to gain a clear view of the more general involvement of local communities in such committees. • **Target** - Ramsar site management committees operating in at least 100 CPs, and including non-government stakeholder representation.
2.7.4 Recognize and apply traditional knowledge and management practice of indigenous people and local communities in the conservation and wise use of wetlands. [CPs]	• Refer to 2.7.1 above. • Also, the issues relating to traditional knowledge and management practices have not been fully considered by the Convention to date. This was noted by the Pan-African regional meeting in 1998 as a priority for consideration by the Ramsar Convention. • **Target** - This will be addressed in the next triennium, possibly in partnership with the Convention on Biological Diversity and Convention to Combat Desertification, which have already initiated work in this area.

<u>Operational Objective 2.8</u>: To encourage involvement of the private sector in the conservation and wise use of wetlands.

Actions	Progress, priorities and targets

2.8.1. Encourage the private sector to give increased recognition to wetland attributes, functions and values when carrying out projects affecting wetlands. [CPs, Bureau, Partners]	• 47 CPs reported that actions had been taken to encourage the involvement of the private sector in the conservation and wise use of wetlands. The NRs contain descriptions of a wide range of situations and cases of partnerships with the private sector which is clearly a growth area of the Convention that needs to be further fostered. • In this triennium the Bureau has also entered into the innovative "Evian Project" in partnership with the multinational Danone Group and several French government agencies through which projects on training and communications are being sponsored. • **Target** - In the next triennium the efforts to work in partnership with the private sector will be further escalated and the Bureau will seek to document and make available case studies on some of the more effective and innovative approaches. By COP8 the target is to have private sector support for wetlands conservation in more than 100 CPs.
2.8.2 Encourage the private sector to apply the Wise Use Guidelines when executing develop-ment projects affecting wetlands. [CPs, Bureau, Partners]	• One aspect of this action is the use of incentive measures. Only 13 CPs advised in their National Reports that they had undertaken reviews of incentives measures and sought to introduce positive incentives and, conversely, remove perverse incentives. • At COP7 incentive measures for wetlands were considered in Technical Session III (Resolution VII.15). • **Target** - In the next triennium the application of this tool for promoting Wise Use will be a priority under the Convention. By COP8 the target is to have more than 50 CPs which have completed reviews of their incentive measures.
2.8.3 Encourage the private sector to work in partnership with site managers to monitor the ecological character of wetlands. [CPs]	• The National Reports do not indicate any situation where this is occurring except through sponsorship arrangements. • This action will be promoted further in the next triennium.
2.8.4 Involve the private sector in the management of wetlands through participation in wetland management committees. [CPs]	• It has not been possible to ascertain the occurrence of such involvement through the COP7 National Reports. • **Target** - As indicated under 2.7.2 and 2.7.3 above the establishment of cross-sectoral and stakeholder management committees for wetlands, and especially Ramsar sites will be a priority in the next triennium.

GENERAL OBJECTIVE 3
TO RAISE AWARENESS OF WETLAND VALUES AND FUNCTIONS THROUGHOUT THE WORLD AND AT ALL LEVELS.

<u>Operational Objective 3.1</u>: To support and assist in implementing, in cooperation with partners and other institutions, an international programme of Education and Public Awareness (EPA) on wetlands, their

functions and values, designed to promote national EPA programmes.

Actions	Progress, priorities and targets
3.1.1 Assist in identifying and establishing coordinating mechanisms and structures for the development and implementation of a concerted global programme of EPA on wetlands. [CPs, Bureau, Partners]	• The *Convention's Outreach Programme* is the response to this action (Resolution VII.9). • **Target** - By COP8 to see the global network of proposed CP focal points for Wetland Communication, Education and Public Awareness (CEPA) in place and functioning effectively in the promotion and execution of the global Outreach Programme. To secure the resources to increase the Bureau's capacity for implementing the Outreach Programme.
3.1.2 Participate in the identification of regional EPA needs and in the establishment of priorities for resource development. [CPs, Bureau, Partners]	• Refer to 3.1.1 above.
3.1.3 Assist in the development of international resource materials in support of national EPA programmes [CPs, Bureau, Partners]	• Refer to 3.1.1 above.
3.1.4 Support international programmes that encourage transfer of information, knowledge and skills between wetland education centres and educators (e.g., Wetland International's EPA Working Group, Global Rivers Environment Education Network (GREEN), Wetland Link International). [CPs, Bureau, Partners]	• Refer to 3.1.1 above. • These Programmes, and several others, participated in the workshop held in September 1998 which helped develop the Outreach Programme.
3.1.6 Facilitate a review of international EPA initiatives for wetlands, in conjunction with the 7th COP. [CPs, Bureau, Partners]	• Refer to 3.1.1 above.

<u>Operational Objective 3.2</u>: To develop and encourage national programmes of EPA on wetlands, Targeted at a wide range of people, including key decision-makers, people living in and around wetlands, other wetland users and the public at large.

Actions	Progress, priorities and targets
3.2.1 Encourage partnerships between governments, non-governmental organizations and other organizations capable of developing national EPA programmes on wetlands. [CPs, Bureau, Partners]	• The Convention's Outreach Programme is intended to further encourage such partnerships (Resolution VII.9). • **Target** - By COP8 to see the global network of proposed CP and non-government focal points for Wetland Communication, Education and Public Awareness (CEPA) in place and functioning effectively in the promotion and execution of the national Outreach Programmes in all CPs. To secure the resources to increase the Bureau's capacity for implementing the Outreach Programme.
3.2.2 On the basis of identified needs and **Target** groups, support national	• Refer to 3.2.1 above. • 62 CPs reported that they have government-run

programmes and campaigns to generate a positive vision of wetlands and create awareness at all levels of their values and functions. [CPs, Bureau, Partners]	programmes for education and public awareness. 66 CPs advise that there are NGOs undertaking such activities in their country. • **Target** - see 3.2.1 above.
3.2.3 Encourage the development of educational centres at wetland sites. [CPs, Bureau, Partners]	• Wetland Education Centres and the Wetlands Link International initiative are a central component of the Outreach Programme. • **Target** - The Convention will aim to have more than 150 active education centres (and similar venues - see 3.2.4 below) promoting the principles of the Convention by COP8 and to ensure that all CPs have at least one such centre.
3.2.4 Work with museums, zoos, botanic gardens, aquaria and educational environment education centres to encourage the development of exhibits and programmes that support non-formal EPA on wetlands. [CPs, Bureau, Partners]	• Museums, zoos, etc., are also a key part of the Outreach Programme, and efforts will be made to encourage these facilities to promote the Convention's work. • **Target** - see 3.2.3 above.
3.2.5 Encourage the inclusion of modules related to wetlands in the curricula at all levels of education, including tertiary courses and specialized training courses. [CPs, Bureau, Partners]	• 43 CPs advised that steps have been taken to incorporate wetland considerations in the curricula of educational institutions. • **Target** - By COP8 to see wetland issue incorporated into curricula in over 100 CPs.

Operational Objective 3.3: To improve the Ramsar Bureau's communications activities and to develop a Convention Communications Strategy, capable of further promoting the Convention and its wider application, and of raising awareness of wetland values and functions.

Actions	**Progress, priorities and targets**
3.3.1 Review the Bureau's communications activities, especially those related to the creation and functioning of regional and national communication networks; develop new material and use of technology, and improve existing material. [Bureau]	• The Outreach Programme fulfils this expectation (Resolution VII.9).
3.3.3 Prepare material, complementary to the existing Ramsar information package, to highlight specific regional issues and the benefits of membership for non-Contracting Parties. [SC regional representatives, Bureau, Partners]	• This was done for Small Island Developing States in this triennium and similar material is under preparation by the Bureau for the countries of west Asia. • **Target** - By COP8 to have produced such material for west Asia and Africa.

3.3.4 Seek the support of an electronic communications carrier to provide and maintain an electronic mail network and electronic bulletin board/mailing lists linking the Contracting Parties, Standing Committee members, the STRP, the Bureau, and partner organizations. [All]	• The Convention's site on the World Wide Web is increasingly the Bureau's primary communication tool. During the month of August 1998 the site received nearly 6,500 visitors from 87 countries who examined nearly 23,000 documents. In addition, there are e-mail groups operating effectively (Ramsar Forum, Ramsar Exchange, STRP and Standing Committee). No private sector support has been sought as yet. The Outreach Programme proposes a continuing escalation in the use and application of the Internet as a communication tool of the Convention. With funds from the "Evian Project" (refer to 2.8.1 above), a number of developing country Administrative Authorities have been assisted to gain access to the Internet during this triennium. • **Target** - By COP8 to gain a sponsor(s) for the Convention's Web site, to ensure that all CPs have Internet access, to increase the use of French and Spanish in the Ramsar Web site, and to see over 300 Ramsar site managers also communicating with the Bureau, and each other, via the Internet.
3.3.5 Prepare for the 7th COP a Convention Communications Strategy, on the basis of the experience gained during the triennium 1997-1999. [SC, Bureau, Partners]	• Refer to 3.3.1 above.

GENERAL OBJECTIVE 4
TO REINFORCE THE CAPACITY OF INSTITUTIONS IN EACH CONTRACTING PARTY TO ACHIEVE CONSERVATION AND WISE USE OF WETLANDS.

<u>Operational Objective 4.1</u>: To develop the capacity of institutions in Contracting Parties, particularly in developing countries, to achieve conservation and wise use of wetlands.

Actions	**Progress, priorities and targets**
4.1.1 Review existing national institutions responsible for the conservation and wise use of wetlands. [CPs]	• This was not a specific question in the NR format for COP7. Refer to 4.1.2 below for further information.
4.1.2 On the basis of such a review, identify and implement measures to: • increase cooperation and synergy between institutions; • promote the continued operation of these institutions; • provide appropriately trained staff, in adequate numbers, for these institutions. [CPs]	• Refer to 8.1.9 also. 87 CPs advised that some form of mechanism is in place, or being introduced, to increase cooperation between the institutions responsible for wetland-related actions. Of these, eight indicated that they have a government-only National Ramsar Committee (NRC) and 44 reported that they have NRCs which include both government and non-government representatives. At the meeting of the Standing Committee in 1995 it was indicated that there were 21 NRCs in place, so this has been a growth area of the Convention. • **Target** - By COP8 to see coordinating mechanisms in place in all CPs, and more particularly to see NRC

	including government and non-government stakeholder representatives in place in more 100 CPs. In addition, by COP8 all CPs that have reported the existence of NRCs at COP7 to have evaluated their effectiveness (Resolution VII.27).

Operational Objective 4.2: To identify the training needs of institutions and individuals concerned with the conservation and wise use of wetlands, particularly in developing countries, and to implement follow-up actions.

Actions	Progress, priorities and targets
4.2.1 Identify at national, provincial and local level the needs and **Target** audiences for training in implementation of the Wise Use Guidelines. [CPs, Bureau, Partners]	• Only 22 CPs advised that a training needs analysis had been completed or was under way, representing a poor response to this action. • **Target** - By COP8 to have training needs analyses completed in more than 75 CPs.
4.2.2 Identify current training opportunities in disciplines essential for the conservation and wise use of wetlands. [CPs, Bureau, Partners]	• As for 4.2.1 above, relatively few CPs (only 23) would seem to have systematically reviewed the training opportunities which exist for the nationals in their countries. • **Target** - By COP8 to have reviews of training opportunities completed in more than 75 CPs.
4.2.3 Develop new training activities and general training modules, for application in all regions, concerning implementation of the Wise Use Guidelines, with specialized modules covering ..... [CPs, Bureau, Partners]	• By comparison with 4.2.1 and 4.2.2 above the NRs indicate a slightly higher level of activity with 40 CPs reporting the development of new training tools in this triennium. • **Target** - To launch a major wetland manager training initiative under the Convention, possibly in partnership with one or more of the Convention's International Organization Partners, which can promote and take advantage of these new training tools. Refer also to 4.2.4 below regarding the Wetlands for the Future Initiative.
4.2.4 Provide opportunities for manager training by: personnel exchanges for on-the-job training; holding pilot training courses at specific Ramsar sites; siting wetland manager training facilities at Ramsar sites; obtaining and disseminating information about training courses for wetland managers around the world. [CPs, Bureau, Partners]	• 74 CPs report that nationals from their country have gained wetland-related training either within or outside the country. This would seem to be an encouraging statistic; however, the information provided regarding training needs (4.2.1) and opportunities (4.2.2) suggests strongly that such training is probably ad hoc and opportunistic rather than directed at addressing priority management problems. • A special mention should be made here of the Wetlands for the Future Initiative, funded by the USA, and managed by the Bureau which provides US$250,000 per year for wetland-related training activities in the Neotropics. • **Target** - Refer to 4.2.3 above. Also to seek the resources from donors or interested CPs to establish Wetlands for the Future Initiatives for the Asia-Pacific, Eastern European and African regions.

4.2.5 Give higher priority in the 'Operational Guidelines' of the Small Grants Fund to support for training activities. [CPs, SC]	• This has been done in this triennium and will continue to be a priority in the next.
4.2.6 Exchange information, technical assistance and advice, and expertise about the conservation and wise use of wetlands, also with regard to South-South cooperation. [CPs, Bureau, Partners]	• Refer to 4.2.3 and 4.2.4 above.

GENERAL OBJECTIVE 5
TO ENSURE THE CONSERVATION OF ALL SITES INCLUDED IN THE LIST OF WETLANDS OF INTERNATIONAL IMPORTANCE (RAMSAR LIST).

<u>Operational Objective 5.1</u>: To maintain the ecological character of Ramsar sites.

Actions	**Progress, priorities and targets**
5.1.1 Define and apply the precise measures required to maintain the ecological character of each listed site, in the light of the working definitions of ecological character adopted at the 6th COP (1996). [CPs]	• This work has been completed by the Scientific and Technical Review Panel (STRP) and was reported to COP7 (Resolution VII.10). • **Target** - By COP8 each CP will seek to ensure that the measures required to maintain the ecological character of at least half of the Ramsar sites has been documented.
5.1.2 Conduct regular internal reviews to identify potential changes in ecological character, with input from local communities and other stakeholders; take remedial action and/or nominate the site for the Montreux Record. [CPs]	• Refer to 2.5.2 - In the COP7 NRs, 35 CPs reported Ramsar sites where some change in ecological character had occurred or was likely to occur in the near future. This was for 115 sites in 33 CPs and two others advised that changes had occurred to all or some of their sites. Through Resolution VII.12 these CPs were urged to consider nominating these sites to the Montreux Record. • **Target** – In the period up to COP8, promote the application and benefits of the Montreux Record as a tool of the Convention through disseminating reports and publications on the positive outcomes achieved by a number of countries which have now removed sites from the Record.
5.1.3 Review and regularly update the Montreux Record (Resolutions 5.4, 5.5, and VI.1). [CPs, STRP, Bureau]	• The Montreux Record is kept up to date by the Bureau. • **Target** - CPs with Ramsar sites in the Montreux Record, and for which Ramsar Advisory Missions have been completed prior to COP7, are expected to have taken the actions necessary to warrant their removal from the Record before COP8.
5.1.4 Increase application of the Management Guidance Procedure (Recommendation 4.7) to provide advice on future management of Ramsar sites. [CPs, SC, Bureau]	• Since COP6 Ramsar Advisory Missions [formerly called Management Guidance Procedures] have been conducted for 9 Ramsar sites in 5 CPs. In addition, 6 sites have been removed from the Montreux Record since COP6. The Bureau has also visited and provided advice on the management of 19 sites on the Montreux Record since COP6. • **Target** - Refer to 5.1.2 and 5.1.3.

5.1.5 Improve implementation of the recommendations made in reports of Management Guidance Procedure missions. [CPs]	• Refer to 5.1.3 above.
5.1.6 Identify the potential impact on the ecological character of Ramsar sites of global threats, including toxic chemicals (Recommendation 6.14), climate change and sea level change. [STRP, Bureau, Partners]	• The STRP has responded in part to this action through the development of a Wetland Risk Assessment Framework (Resolution VII.10). • **Target**s - By COP8, to see the *Wetland Risk Assessment Framework* being regularly applied in all CPs. The STRP will prepare for consideration at COP8 a comprehensive review of the potential impacts of climate change on wetlands and the roles that wetlands can potentially play in mitigating the effects of climate change and sea level rise.

Operational Objective 5.2: To develop and implement management plans for all Ramsar sites, consistent with the Convention's Guidelines on Management Planning and emphasizing involvement of local communities and other stakeholders.

Actions	**Progress, priorities and targets**
5.2.1 Review the Guidelines on Management Planning in the light of practical experience and Recommendation 6.13. [COP]	• The STRP, with support from the Bureau, has completed this review since COP6 (Resolution VII.12). The STRP recommend the development of additional guidance to assist CPs with preparing the best possible management plans. • **Target** - The STRP to prepare for consideration at COP8 the additional guidance on management planning recommended by the review undertaken in this triennium.
5.2.2 Publish for the guidance of Contracting Parties, before the 7th COP (1999), ten best practice case studies of management planning for Ramsar sites, at local, regional and catchment or coastal zone levels. [STRP, Bureau, Partners]	• As indicated in 2.6.4. a number of the case studies assembled under other projects completed for COP7, such as *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8) and the *Guidelines for integrating wetland conservation and wise use into river basin management* (Resolution VII.19) include management planning activities. These will be published after COP7.
5.2.3 Ensure that, by the 8th COP (2002), management plans or other mechanisms are in preparation, or in place, for at least half of the Ramsar sites in each Contracting Party, beginning with pilot programmes at selected sites with input from local communities and other stakeholders. [CPs, Partners]	• The National Reports for COP7 indicate that management plans are in place or being prepared for 416 or 44% of Ramsar sites at present (Resolution VII.12). • **Target** - By COP8 management plans will be in preparation, or in place, for at least three-quarters of the Ramsar sites in each CP and all CPs will seek to ensure that these are being implemented in full.
5.2.4 Promote the establishment and implementation of zoning measures related to larger Ramsar sites, wetland reserves and other wetlands (Kushiro Recommendation 5.3). [CPs, Partners]	• Zonation was identified in the review of the Ramsar management planning guidelines as one area where further guidance is needed by CPs. • **Target** - Refer to 5.2.1 above.

5.2.5 Promote the establishment and implementation of strict protection measures for certain Ramsar sites and other wetlands of small size and/or particular sensitivity (Recommendation 5.3). [CPs, Partners]	• This aspect of Ramsar site management was not considered in the COP7 National Reports and will have to be reviewed in time for COP8. • **Target** - Provide for consideration at COP8 detailed information on the implementation of strict protection measures at small and/or sensitive sites.
5.2.6 Give high priority in the Operational Guidelines for the Small Grants Fund to support for management planning at Ramsar sites. [CPs, SC]	• This has been the practice since COP6 and will continue to be the case.

Operational Objective 5.3: To obtain regularly updated information on wetlands of international importance, in accordance with the approved standard format.

Actions	Progress, priorities and targets
5.3.1 Ensure that the maps and descriptions of Ramsar sites submitted to the Ramsar Database by the Contracting Parties at the time of designation are complete, in the approved standard format of the Information Sheet on Ramsar Wetlands, and provide sufficient detail to be used for management planning and monitoring of ecological character. [CPs, Bureau, Wetlands International]	• Since COP6 the Bureau has reviewed each new site description submitted with a designation and, where necessary, delayed inclusion of the site in the List until more detailed information, conforming with the approved Ramsar Information Sheet and/or a detailed map, has been provided. • This will continue to be the practice in future.
5.3.2 Ensure that missing or incomplete data sheets and/or maps of listed sites are submitted as a matter of priority and in the shortest possible time, as a means to enhance the relevance and use of the Ramsar Database. [CPs]	• Since COP6 considerable progress has been made in this regard; however, there remain 54 sites in 11 CPs where appropriate site descriptions have not been provided, 8 sites in four CPs where a suitable map has not been submitted, and 21 sites in two CPs where site descriptions have yet to be provided in one of the three official working languages of the Convention (Resolution VII.12). • **Target** - By the end of 1999, for there to be no Ramsar sites for which appropriate sites descriptions and maps are required.
5.3.3 Ensure that data sheets on Ramsar Sites are regularly updated, at least for every second meeting of the COP, so that they can be used for reviewing the achievements of the Convention, for future strategic planning, for promotional purposes, and for site, regional and thematic analysis (Resolution VI.13). [CPs, STRP, Bureau, Wetlands International]	• Following COP6, all CPs which had designated sites prior to 31 December 1990, and not revised the information subsequently, were asked to provided updated descriptions using the revised Ramsar Information Sheet. This applied to 172 of the 512 sites designated before this date in 31 CPs. By 10 March 1999, such updates had not been received from 11 CPs for 27 sites. • **Target** - By the end of 1999, for there to be no Ramsar sites designated before 31 December 1990 for which updated sites descriptions are required.
5.3.4 Review, update and reprint the *Directory of Ramsar Sites* for the 7th COP (1999), and produce, for the 8th COP (2002), a summary of sites listed between the 7th and 8th COPs. [Bureau, Wetlands International]	• *A Directory of the Wetlands of International Importance* has been prepared for distribution at COP7. It is available on CD-ROM.

Operational Objective 5.4: To keep under review the content and structure, as well as the hardware and software, of the Ramsar Database, in order to ensure that it retains its relevance in light of evolving information and communication technology.

Actions	Progress, priorities and targets

5.4.1 Assess data currently available in the database and identify any gaps in the data provided by Contracting Parties. [CPs, STRP, Bureau, Wetlands International]	• Refer to 5.2.2, 5.2.3 and 5.2.4 above.
5.4.2 Upgrade and update the database to meet assessed needs and revise its structure accordingly, including the feasibility of developing a Geographical Information System (GIS). [Bureau, Wetlands International]	• This has been foreshadowed in the *Convention's Outreach Programme* (Resolution VII.9). • **Target** - By COP8, or sooner, to have the Ramsar sites Database on-line on the World Wide Web, complete with mapping GIS and facility for interactive interrogation of the database.
5.4.3. Make the database widely accessible (read only versions) through electronic networks (the Internet), run-time versions on diskettes and CD-ROMs, and by the publication of special reports and other outputs. [Bureau, Wetlands International]	• Refer to 5.3.4 and 5.4.2. In addition, Wetlands International prepared and distributed at COP7 a revised edition of the *Overview of the World's Ramsar Sites* publication.
5.4.4 Support the establishment of national wetland databases compatible with the Ramsar Database and develop a common protocol to facilitate exchange and interaction. [CPs, Partners]	• This is foreshadowed in the *Convention's Outreach Programme* (Resolution VII.9). The report prepared by Wetlands International for COP7 Technical Session IV entitled "Global review of wetland resources and priorities for inventory" and the related resolution (Resolution VII.20) propose that the Convention promote standard protocols for inventory and data housing to facilitate exchange and interaction. • **Target** - By COP8 to have national wetland databases in over 50 CPs which are accessible globally.

GENERAL OBJECTIVE 6
TO DESIGNATE FOR THE RAMSAR LIST THOSE WETLANDS WHICH MEET THE CONVENTION'S CRITERIA, ESPECIALLY WETLAND TYPES STILL UNDER-REPRESENTED IN THE LIST AND TRANSFRONTIER WETLANDS.

Operational Objective 6.1: To identify those wetlands that meet the Ramsar criteria, and to give due consideration to their designation for the List.

Actions	Progress, priorities and Targets
6.1.1 Develop, regularly update -- especially in the case of Africa -- and disseminate regional wetland directories, which identify potential Ramsar sites. [CPs, Partners]	• 67 CPs reported that there exists a directory of sites for their country or region which identifies potential Ramsar sites. Refer to 6.2.1 below relating to the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11). • **Target** - Refer to 6.2.1.
6.1.2 Establish, update and disseminate national scientific inventories of wetlands which identify potential Ramsar sites and wetlands of provincial or local importance in the territory of each Contracting Party. [CPs, Partners]	• 46 CPs reported that a national wetland inventory had been completed for their country and a further 41 CPs that the preparation of an inventory was planned for the near future. It is suspected that some CPs may have misunderstood the term national inventory and responded 'yes' to this question when they only have a directory of important sites, or an inventory completed for part of their country. This conclusion is reinforced by the findings of the report prepared by Wetlands International for COP7 entitled "Global review of wetland resources and priorities for inventory" (Resolution VII.20). • **Target** - By COP8 to have national wetland inventories completed by over 50 CPs and the information housed in databases (Refer 5.4.4) which are accessible globally.
6.1.3 Utilize information from regional wetland directories, national scientific inventories of wetlands and other sources, to begin development of a quantification of global wetland resources, as baseline information for considering trends in wetland conservation or loss. [Bureau, Partners]	• The Report prepared by Wetlands International (Refer to 5.4.4 and 6.1.2 above) on the extent of the global wetland resource provides an estimate of area, but not with great confidence given the poor state of wetland inventory globally. In their NRs, 63 CPs advised that they have an estimate of wetland area in the country and 17 CPs reported the existence of some information on rates of loss or conversion of wetlands. • **Target** - By COP8 to have undertaken a more detailed follow-up study to the Wetlands International Report to ensure that the Convention has available the best possible information relating the extent of the world's wetland resources. As national wetland inventories are completed (refer to 6.1.2), include the findings into the global dataset.
6.1.4 Support the work of Wetlands International and IUCN in updating information on population sizes of waterfowl and other taxa, and utilize these data in identification of potential Ramsar sites. [CPs, Bureau, Partners]	• This is an ongoing process which will now serve to inform the implementation by CPs of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11, refer 6.2.1). • **Target** – Draft of the 4th edition of the publication *International Waterfowl Population Estimates* to be prepared

	for presentation at COP8.

<u>Operational Objective 6.2</u>: To increase the area of wetland designated for the List of Wetlands of International Importance, particularly for wetland types that are under-represented either at global or national level.

Actions	Progress, priorities and targets
6.2.1 Promote the designation for the Ramsar List of an increased area of wetland, through listing by new Contracting Parties, and through further designations by current Contracting Parties, in particular developing countries, in order to ensure the listing of a representative range of wetland types in the territory of each Contracting Party and in each Ramsar region. [CPs, Bureau, Partners]	• Since COP6 there have been a further 151 sites designated under the Convention in 43 CPs, bringing the total to 970 in the 114 CPs as of 10 March 1999. Between COP5 and COP6, 202 sites were designated in 43 CPs. As was noted at the time of COP6, it is a concern that 548 of all sites are located in just 13 CPs. At the same time there remain 69 CPs which have fewer than 5 Ramsar sites and 35 CPs which have only one site - that which was designated at the time of accession. • At COP7 the CPs had for consideration a document entitled *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11) which, as the title suggests, aims to provide a vision and framework for taking a more systematic approach to future site designations. • **Target** - As proposed in the Strategic Framework, the short-term target of the Ramsar List should be to achieve the designation of 2000 sites, in accordance with the systematic approach advocated therein, by the time of COP9 in the year 2005. In addition, by COP8 the target is to have at least 20 CPs that are applying a systematic approach to site selection nationally.
6.2.2 Provide assistance and advice to Contracting Parties in the process of ensuring that wetlands being considered for Ramsar designation meet the criteria (Resolution 5.3). [Bureau]	• This is an ongoing part of the Bureau's responsibilities and will continue to be so.

6.2.3 Give priority attention to the designation of new sites from wetland types currently under-represented on the Ramsar List, and in particular, when appropriate, coral reefs, mangroves, sea-grass beds and peatlands. [CPs]	• Refer to 6.2.1 above. As was noted under 6.2.1 above, since COP6 there have been 151 sites designated. Of these 55 sites include wetland types which were identified at the time of COP6 as being under-represented types. The breakdown of new site designations by type is as follows: 12 sites with seagrass beds, 8 with mangroves, two with coral reefs, 36 with non-forested peatlands and 14 with forested peatlands. This has to be recognised as an extremely disappointing response. • However, in their NRs, 25 CPs say they are considering the designation of peatland sites, 10 CPs are considering coral reef sites, and 17 CPs mangrove and sea grass wetland sites. Further, 11 CPs are moving to designate karsts system wetlands. 46 CPs indicate they have taken actions to prepare site designations based on the fish criteria, and 29 for the waterbird criteria. • **Targets** - The long-term targets are set by the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11). Based on this, short-term targets for each wetland type will be derived.
6.2.4 Pay particular attention to the designation of new sites currently enjoying no special conservation status at national level, as a first step towards developing measures for their conservation and wise use. [CPs]	• This question was not one considered in the National Reports for COP7. It will be included for consideration in the NRs for COP8. • **Target** - All CPs to consider this approach to ensure the long-term conservation and wise use of wetlands that are subject to intense human use.
6.2.5 Consider as a matter of priority the designation of transfrontier wetland sites. [CPs]	• In the NRs 42 CPs advised that they have transfrontier sites which have been included in the Ramsar List. A further 40 CPs indicated they have plans for such designations. • The issue of transfrontier or shared wetlands is addressed in the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19) and the *Guidelines for integrating wetlands into river basin management* (Resolution VII.18). • **Target** - By COP8 for there to be over 50 transfrontier wetland sites designated under the Convention.

<u>Operational Objective 6.3</u>: To keep under review the Ramsar Criteria for identifying wetlands of international importance (Resolution VI.3).

Actions	**Progress, priorities and targets**
6.3.1 Keep general criteria under review to ensure they reflect global wetland conservation priorities and values. [COP, STRP, Bureau]	• The *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11) - Refer to 6.2.1 - has incorporated into it the products of the STRP's review of the Criteria. • **Target** – STRP to prepare for consideration at COP8 draft additional guidance for the identification and designation of peatland, wet grassland, mangrove, and coral reef wetland types as Ramsar sites.
6.3.3 Provide further guidance on the	• This is provided by the Strategic Framework for the List

application of existing criteria in different regions. [COP, STRP, Bureau]	document referred to above.

GENERAL OBJECTIVE 7
TO PROMOTE INTERNATIONAL COOPERATION AND MOBILIZE FINANCIAL ASSISTANCE FOR WETLAND CONSERVATION AND WISE USE IN COLLABORATION WITH OTHER CONVENTIONS AND AGENCIES, BOTH GOVERNMENTAL AND NON-GOVERNMENTAL.

Operational Objective 7.1: To identify international and/or regional needs for managing shared wetlands and shared catchments, and develop and implement common approaches.

Actions	Progress, priorities and Targets
7.1.1 Identify transfrontier wetlands of international importance (including those within shared catchment/river basins), and encourage preparation and implementation of joint plans for such sites, using a "catchment approach" (Recommendation 5.3). [CPs, Partners]	• Refer to 6.2.5 above.
7.1.2 Encourage twinning of transfrontier wetlands, and of other wetlands with similar characteristics, and use successful cases for illustrating the benefits of international cooperation. [CPs, Bureau, Partners]	• 25 CPs advise that they have site twinning arrangements in place. This seems very few given that the concept has been promoted by the Convention for several years. • Both the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19) and the *Convention's Outreach Programme* (Resolution VII.9) promote site twinning as a mechanism for accelerating the flow of knowledge and assistance and promoting training opportunities. • **Target** - By COP8 to have in place over 100 Ramsar site twinning arrangements. The Bureau will keep a record of which sites are twinned and make this available through the Convention's Web site.

Operational Objective 7.2: To strengthen and formalize linkages between Ramsar and other international and/or regional environmental conventions and agencies, so as to advance the achievement of shared goals and objectives relating to wetland species or issues.

Actions	Progress, priorities and targets

7.2.1 Participate in, or initiate, consultations with related conventions to foster information exchange and cooperation, and develop an agenda for potential joint actions. [SC, Bureau]	• Refer to the advice provided below for a number of related conventions. In addition, in December 1998 a Memorandum of Cooperation was signed with the Convention to Combat Desertification through which a range of joint actions will be pursued in the next triennium. At COP7, an Memorandum of Understanding was signed between the Ramsar Bureau and the World Heritage Centre (see 7.2.4). Refer to Resolution VII.4 (Annex II). • **Target** - A Joint Work Plan between the Ramsar Convention on the Convention to Combat Desertification which sees cooperative implementation of both at the international, national and local levels.
7.2.2 Prepare project proposals together with other conventions and partner organizations, and submit them jointly to potential funding agencies. [CPs, SC, Bureau, Partners]	• This has occurred on a number of occasions since COP6 and will continue to be pursued by the Bureau. It has to be somewhat opportunistic in nature, and related to the Bureau's approved programme of work.
7.2.3 Strengthen cooperation and synergy with the Convention on Biological Diversity, in particular as regards inclusion of wetland concerns in national biodiversity strategies, and planning and execution of projects affecting wetlands. [CPs, Bureau, Partners]	• The Ramsar Convention has a Memorandum of Cooperation with CBD, and prepared a Joint Work Plan between the Conventions which was endorsed by CBD's COP4 in 1998. Refer to Resolution VII.4 (Annex I). • **Target** - To see the Joint Work Plan implemented in full and resulting in cooperative implementation of both Conventions at the international, national and local levels.
7.2.4 Develop cooperation with the World Heritage Convention and UNESCO's Programme on Man and the Biosphere (MAB), especially as regards wetlands designated as World Heritage sites, Biosphere Reserves and/or Ramsar sites. [CPs, Bureau, Partners]	• A Memorandum of Understanding between the Ramsar Bureau and the World Heritage Centre was signed at COP7. Links with the Man and the Biosphere programme have yet to be established and this will be a priority over the next triennium. • **Target** - A Memorandum of Cooperation with the Man and the Biosphere Programme, leading to Joint Work Plans with the MAB Programme and with the World Heritage Convention which sees cooperative implementation of both at the international, national and local levels.
7.2.5 Enhance Ramsar's contribution to international cooperation on shared wetland species, notably through cooperative arrangements with the Convention on Migratory Species, flyway agreements, networks and other mechanisms dealing with migratory species (Recommendation 6.4). [CPs, Bureau, Partners]	• The Ramsar Convention has a Memorandum of Understanding in place with the Convention on Migratory Species (Resolution VII.4). • The *Guidelines for international cooperation under the Ramsar Convention* propose an escalation of the joint efforts between Ramsar and CMS (Resolution VII.19) • **Target** - A Joint Work Plan between the Conventions which sees cooperative implementation of both at the international, regional and national and local levels.
7.2.6 Develop Ramsar's contribution to wildlife trade issues affecting wetlands, through increased interaction with CITES. [Bureau]	• The *Guidelines for international cooperation under the Ramsar Convention* propose an escalation of the joint efforts between Ramsar and CITES (Resolution VII.19) • **Target** - A Memorandum of Cooperation with CITES, leading to a Joint Work Plan between the Conventions and which sees cooperative implementation of both at the international, national and local levels.

7.2.7 Initiate links with the United Nations Framework Convention on Climate Change, in view of the potential impacts on wetlands of climate change. [CP, Bureau]	• These links have yet to be established and this will be a priority over the next triennium. • **Target** - A Memorandum of Cooperation with UNFCCC, leading to a Joint Work Plan between the Conventions and which sees cooperative implementation of both at the international, national and local levels.
7.2.8 Extend cooperation with conventions and agencies concerned with conservation and wise use of wetlands at regional level, and in particular: with the European Community, as regards application of its Habitats Directive to wetlands, and adoption and application of measures like the Habitats Directive for wetlands outside the states of the European Union; with the Council of Europe (Bern) Convention on the conservation of European wildlife and natural habitats as regards the Pan-European Biological and Landscape Diversity Strategy; with the Barcelona Convention and Mediterranean Action Plan in relation to the MedWet initiative; with the Western Hemisphere Convention; with UNEP programmes, in particular the Regional Seas Conventions; and with the South Pacific Regional Environment Programme (SPREP). [CPs, Bureau]	• These links are at differing stages in their evolution and each will be advanced as resources allow over the next triennium. • **Target** - With the European Commission and SPREP - develop and sign a Memorandum of Cooperation, prepare and implement a Joint Work Plan. For Medwet, secure the long-term funding base for this important initiative and continue to develop new programmes of regional action. For the others referred to, and others which are appropriate, develop an appropriate working relationship.
7.2.9 Develop relationships with other specialized agencies that deal with wetland-related issues, such as the International Coral Reef Initiative (ICRI) and the World Water Council (Resolution VI.23). [Bureau]	• Efforts were made to establish closer working relations with ICRI. The Bureau has been an active participant in the meetings of the World Water Council and Global Water Partnership. The participation in these in the next triennium will be determined by the human resources available within the Bureau and the future evolution of these initiatives. • **Target** - To progress to closer working relations with these and other relevant initiatives, as appropriate.

<u>Operational Objective 7.3</u>: To ensure that the development assistance community, and multinational corporations, follow improved wetland practices such as the Wise Use Guidelines in developing countries and countries whose economies are in transition.

Actions	**Progress, priorities and Targets**
7.3.1 Identify representative examples of best practice in wetland projects supported by development agencies and/or initiated by multinational corporations. [Bureau, Partners]	• The first part of this action has been considered in part by COP7 DOC. 20.4 entitled "Mobilising financial support from bilateral and multilateral donors for the implementation of the Ramsar Convention", and the conclusion of this review of donor agency support for the work of the Convention is provided as part of the *Guidelines for international cooperation under the Ramsar Convention* (Resolutioin VII.19). • **Target** - To complete this action before COP8.

7.3.2 Work with multilateral and bilateral development agencies and multinational corporations towards a full recognition of wetland values and functions (Recommendation 4.13), and assist them to improve their practices in favour of wetland conservation and wise use taking account of the *Guidelines for Aid Agencies for Improved Conservation and Sustainable Use of Tropical and Sub-Tropical Wetlands,* published by OECD's Development Assistance Committee (Recommendation 6.16). [Bureau, Partners]	• The Bureau's work in this area has not progressed as expected due to the lack of resoureces to employ a Development Assistance Officer fully devoted to this important area of work. • The OECD's Guidelines have been considered as part of the review of donor agency support for the work of the Convention in the document COP7 DOC 20.4. The conclusions of this review, including recommendations for how to mobilise more funds from the donor agencies, are presented in the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19). • The issue of multinational corporations is also addressed in these Guidelines, with a recommendation that the Convention promote the concept of voluntary codes of conduct. • **Target** - At the Bureau level, to consider ways and means to increase its ability to work more systematically in this area, so as to increase the level of donor agency support for wetland conservation and wise use activities, and to see an increasing number of multinational corporations adopting voluntary codes of conduct for protecting wetlands.
7.3.3 Interact with multilateral development agencies and through bilateral development programmes, to assist developing countries in meeting their Ramsar obligations, and report on actions taken and results achieved (Recommendation 5.5). [CPs]	• Refer to 7.4.2 to 7.4.6 below.
7.3.4 Develop, for consideration at a technical session of the 7th COP (1999), guidelines for Contracting Parties on how to carry out their obligations in the field of international cooperation, particularly as regards obligations concerning national funding agencies which provide assistance that may affect wetlands in developing countries. [SC, Bureau]	• *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19) were prepared and adopted at COP7. • Refer to 7.3.1, 7.3.2 and 7.3.3 regarding national agencies.

<u>Operational Objective 7.4</u>: To obtain funds to fulfil obligations contracted under the Convention, notably for developing countries and countries whose economies are in transition.

Actions	**Progress, priorities and targets**
7.4.1 Allocate funds for conservation and wise use of wetlands in the budget of each Contracting Party. [CPs]	• 84 CPs advised that their government makes an annual allocation to support actions related to wetland conservation and wise use. Of these, 65 report that this is as part of larger environmental appropriations, while 19 say that funds are provided to a specific wetlands programme. Twelve CPs indicate that allocations are made to both larger programmes and a specific wetlands programme. • **Target** - By COP8 to see allocations for wetlands made

	in all CPs and also to specific wetland programmes in more than 40 CPs.
7.4.2 Include projects for conservation and wise use of wetlands in development plans funded by development assistance agencies, and ensure the latter consult the Ramsar administrative authority in each Contracting Party. [CPs]	• 73 CPs reported to have received, or to be receiving at present, donor support for wetland-related projects. • A range of measures to further increase the level of donor support for wetland-related projects are proposed in the *Guidelines for international cooperation under the Ramsar Convention* (Resolution VII.19). • **Target** - To see this trend escalate such that all eligible CPs are receiving donor support for a range of major wetland-related projects by the time of COP8. In particular to see this support being provided, as appropriate, for the priority areas of policy development, legal and institututional reviews, inventory and assessments, the designation and management of Ramsar sites, training and communications.
7.4.3 Maintain close working relations with multilateral agencies that provide development assistance in relation to project screening, development and evaluation, notably: .....[Bureau]	• See 7.2.3 above. In this triennium, and in spite of its human resource constraints, the Bureau has developed some form of working relationship with all of these multilateral agencies. Increasingly this allows the Bureau to provide either direct or indirect advice to them. • **Target** - By COP8 to have increased the Bureau's capacity in this area and to see these relationships mature to full and frequent dialogue and advice.
7.4.4 Mobilize direct funding support from multilateral and bilateral development assistance agencies, to assist developing countries and countries whose economy is in transition, in the conservation and wise use of wetlands and in implementation of the present Strategic Plan. [CPs. Bureau]	• 14 CPs indicated that they have a bilateral development assistance agency which has funds earmarked for wetland conservation and wise use projects. Of these, only 7 advised that a mechanism was in place between the donor agency and the Ramsar Administrative Authority for regular consultations. • Resolution VII.19 and document COP7 DOC. 20.4 examine these issues in more detail. Refer also to Resolution VII.4 in relation to accessing the GEF for wetland-related projects. • **Target** - By COP8 to have all the bilateral donors from appropriate CPs with funds earmarked for wetlands projects, and for all of these CPs to have in place mechanisms for consultation between the development assistance agency and their Ramsar Administrative Authority.
7.4.5 Assist developing countries and countries whose economies are in transition to prepare wetland projects for funding by other agencies. [Bureau, Partners]	• This is becoming increasingly common, with both the Bureau and the Convention's International Organization Partners taken on such advisory and assistance roles. • **Target** - Refer to 7.4.4.
7.4.6 Assist bilateral development assistance agencies in the screening, development and evaluation of wetland projects. [STRP, Bureau]	• This is becoming increasingly common, with both the Bureau and the Convention's International Organization Partners taking on such advisory and assistance roles for the development agencies. • **Target** - Refer to 7.4.4.

GENERAL OBJECTIVE 8
TO PROVIDE THE CONVENTION WITH THE REQUIRED INSTITUTIONAL MECHANISMS AND RESOURCES.

Operational Objective 8.1: To maximize achievement of Ramsar's mission and objectives by evaluating and, if necessary, modifying the Convention's institutions and management structures.

Actions	Progress, priorities and targets
8.1.1 Reorganize, as of the 7th COP (1999), the meeting into a business session, focusing upon administrative matters, and a technical session, focusing upon wetland conservation and wise use priorities, with smaller working groups as required. [SC, Bureau]	• The Standing Committee decided in this triennium to reorganize the arrangements for the Technical Sessions at COP7. • **Target** – The Standing Committee to review the structure and organization of the Conference of Contracting Parties and adopt changes to facilitate its implementation and effectiveness.
8.1.2 Keep under review the regional representation in the Standing Committee as the number of Contracting Parties increases. [COP, SC]	• Refer to Resolution VII.1 entitled *Regional categorisation of countries under the Convention and composition, roles and responsibilities of the Standing Committee, including duties of Standing Committee members*
8.1.3 Review and, if necessary, redefine the roles, responsibilities and possible financial needs of the Standing Committee, prior to the 7th COP (1999). [COP, SC]	• Refer to Resolution VII.1 - see above.
8.1.4 Review the working priorities of the Scientific and Technical Review Panel (STRP) at each meeting of the COP. [COP, SC]	• These priorities are determined by the Convention's Work Plan and the Resolutions and Recommendations adopted by COP7.
8.1.5 Review requirements for the Bureau's staff structure and size in line with decisions on programme, and review linkages between the Bureau, other convention secretariats and partner organizations. [COP, SC]	• To be considered through reflection upon this document and the triennial budget adopted by COP7 (Resolution VII.28). • Resolution VII.4 reviews linkages between the Bureau and other Convention secretariats, and Resolution VII.3 between the Bureau and International Organization Partners.
8.1.6 Evaluate and report on the implementation of the Strategic Plan at each meeting of the COP and prepare for every other meeting a draft Strategic Plan for the forthcoming two triennia. [COP, SC, Bureau]	• This document provides the evaluation for the first triennium of the Strategic Plan. • At COP7 the Standing Committee was charged with preparing the Strategic Plan 2003-2008 (Resolution VII.27).
8.1.7 Prepare annual Bureau Business Plans, based on the Strategic Plan and Triennial Programmes approved by the COP, for the consideration and approval of the Standing Committee. [SC, Bureau]	• This has been the practice in this triennium and will continue for the next. This document provides a Triennial Programme for the Convention, from which the Bureau's annual Plan will be developed for approval by the Standing Committee.

8.1.8 Develop liaison mechanisms based with Contracting Parties or partner organizations to enhance implementation of the Convention in the regions, in coordination with the Bureau. [CPs, Bureau, Partners]	• There are many examples of such mechanisms, one of the more notable being the partnership between Environment Australia and Wetlands International - Oceania. Under this arrangement the Oceania office of Wetlands International is co-located with Environment Australia (the national environment agency) and resources are provided for promoting wetland conservation and wise use in the Pacific Islands, and for furthering the development of the East Asian-Australasian migratory bird flyway. • **Target** - To see more of these types of arrangements being supported by CPs.
8.1.9 Promote the establishment of National Ramsar Committees to provide the opportunity for input from, and representation of, governmental and non-governmental organizations, key stakeholders, indigenous people, the private sector and interest groups, and land use planning and management authorities (Recommendation 5.13). [CPs, Bureau, Partners]	• Refer to 4.1.2 above. 87 CPs advised that some form of mechanism is in place, or being introduced, to increase cooperation between the institutions responsible for wetland-related actions. Of these, eight indicated that there have a government-only National Ramsar Committee (NRC) and 44 reported that they have NRCs which include both government and non-government representatives. At the meeting of the Standing Committee in 1995 it was indicated that there were 21 NRCs in place so this has been a growth area of the Convention. • **Target** - By COP8 to see coordinating mechanisms in place in all CPs, and more particularly to see NRCs including government and non-government stakeholder representatives in place in more 100 CPs. In addition, by COP8 all CPs that have reported the existence of NRCs at COP7 to have evaluated their effectiveness.
8.1.10 Review the designated national focal point in each Contracting Party, with a view to increasing involvement in the work of the Convention from all agencies concerned with the conservation and wise use of wetlands. [CPs]	• The increase in the number of National Ramsar Committees (Refer to 4.1.1 and 4.1.2.) suggests that wetlands and the Ramsar Convention are becoming mainstream business in many CPs. The indications that wetlands are increasingly being considered as integrated elements of land/water management are another sign of this (Refer 2.2.1 and 2.2.2). • **Target** - refer to those set for the related actions as specified herein.
8.1.11 Establish and ensure regular implementation of processes for evaluating the effectiveness and efficiency of all Ramsar Convention institutions, mechanisms, and programmes, including National Reports to the COP (Resolution VI.21); implement recommendations arising, and report to the COP and Standing Committee on the results obtained. [COP, SC, Bureau]	During this triennium the Standing Committee, supported by the Bureau has reviewed: • the regional structure and operations and of the Standing Committee (Resolution VII.1), • the composition and *modus operandi* of the STRP (Resolution VII.2), • the Convention's partnerships with international organizations (Resolution VII.3); and • operations of the Small Grants Fund (Resolution VII.5).

<u>Operational Objective 8.2</u>: To provide the financial resources required to carry out Ramsar activities.

Actions	**Progress, priorities and targets**

8.2.1 Pay invoiced contributions to the Convention's core budget in full, and promptly at the beginning of each calendar year. [CPs]	• Most CPs have regularly paid their dues, yet in this triennium some problems have continued in this area. Document COP7 DOC. 14 examined the issues and proposed remedial measures. (Refer to Resolution VII.28 on budgetary matters.) • **Target** - During this triennium to achieve full and timely payment of all dues by all CPs. The SC to prepare a proposal on sanctions for non-payment for consideration at COP8 (Resolution VII.28).
8.2.2 Provide sufficient support in both financial and staffing terms to enable the SC representatives from developing countries and countries whose economies are in transition to function effectively in coordinating Convention activities and information flow throughout their regions. [COP, SC]	• Refer to Resolution VII.1 for a review of the roles and responsibilities of the members of Standing Committee.
8.2.3 Ensure the Bureau has adequate staff to play a catalytic role in presenting projects to potential donors for funding. [COP]	• At present the Bureau does not have a member of staff dedicated solely to this function. It is a role shared between the senior staff of the Bureau. • **Target** – The Bureau to consider establishing a post of Development Assistance Officer by 1 January 2000 (Resolution VII.28).
8.2.4 Give priority to funding for training programmes, education and public awareness work, development of the Ramsar Database, and the Convention's Communications Strategy. [CPs, Bureau, Partners]	• A number of voluntary contributions from CPs and the private sector are helping to support these types of activities. These have been referred to above, such as the Wetlands for the Future training initiative in the Neotropics supported by the USA, funds provided by the Swiss Government for projects in Africa, support for the MedWet initiative from the European Commission and MedWet members, the support for the activities of Wetlands International - Oceania by Australia, and the Evian Project sponsored by the multinational Danone Group, the French GEF, and a range of other French government agencies. Bureau staff assist in the annual International Course in Wetland Management offered by the Institute for Inland Water Management and Waste Water Treatment (RIZA) in the Netherlands. Resources are also being sought to add to the Bureau's capacity for implementing the *Convention's Outreach Programme* (Resolutions VII.9 and VII.28) • **Target** - To secure the resources needed to establish regional training initiatives (like Wetlands of the Future) in other regions, to allow the Bureau to progress the implementation of the Outreach Programme and to support the proposed developments for the Ramsar Sites Database into a fully online and Web-based promotional and planning tool of the Convention.

<u>Operational Objective 8.3</u>: To maximize the benefits of working with partner organizations.

Actions	**Progress, priorities and targets**

8.3.1 Strengthen cooperative planning mechanisms with the partners and improve communications and information exchange, including exchange of staff. [CPs, Bureau, Partners]	• At the 21st meeting of the Standing Committee the Bureau and the International Organization Partners considered this issue and agreed that the best results would be obtained from undertaking such planning on a bilateral basis in future.
8.3.2 Review and renew formal agreements with partners to ensure there is no duplication of effort and to maximize effective use of resources, and establish new partnerships, especially in relation to the Wise Use Guidelines. [Bureau, Partners]	• Agreements are in place between the Bureau and IUCN, Wetlands International, and BirdLife International. • Resolution VII.3 considers the issues of the Convention accepting further international partners. • **Target** - to review the existing cooperative arrangements with all International Organization Partners by 31 December 1999 and in the light of COP7 decisions.

<u>Operational Objective 8.4</u>: To secure at least one million US dollars per annum for the Ramsar Small Grants Fund for Wetlands Conservation and Wise Use (Resolutions 5.8 and VI.6) and to allocate these funds effectively.

Actions	**Progress, priorities and targets**
8.4.1 Develop a strategy for securing at least one million US dollars annually for the Ramsar Small Grants Fund, to be approved by the first full meeting of the Standing Committee after the 6th COP (1996) and proceed immediately to its implementation. [Bureau, SC, CPs, Partners]	• Refer to Resolution VII.5. • The contributions to the SGF remain unpredictable on a year by year basis. • **Target** - To establish a mechanism to ensure one million US dollars annually for the Ramsar Small Grants Fund (Resolution VII.28).
8.4.2 Evaluate critically, at the 7th COP (1999), the performance of the Small Grants Fund. [COP, SC, Bureau]	• Refer to Resolution VII.5 entitled *Critical evaluation of the Convention's Small Grants Fund for Wetland Conservation and Wise Use (SGF) and its future operations.*
8.4.3 Encourage and assist the preparation of high quality applications to the Small Grants Fund. [SC, Bureau, Partners]	• This is an ongoing task of the Bureau. • Refer to the review of the SGF – Resolution VII.5 - for suggested improvements to be made in this area in the next triennium.

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Financial and budgetary matters

1. RECALLING the budgetary provisions established by Article 6, paragraphs 5 and 6, of the Convention;

2. ACKNOWLEDGING WITH APPRECIATION the prompt payment by the majority of Contracting Parties of their contributions to the core budget of the Convention;

3. NOTING WITH GRATITUDE the additional financial contributions made by many Contracting Parties through their Ramsar Administrative Authority and other agencies, including some development assistance agencies, and also the contributions made by non-governmental organizations and the private sector for activities undertaken by the Ramsar Bureau, as shown in the information document Ramsar COP7 DOC. 26;

4. ACNOWLEDGING ONCE MORE WITH APPRECIATION the effective financial and administrative services provided by IUCN – The World Conservation Union to the Ramsar Bureau;

5. NOTING WITH SATISFACTION that, following COP6 Resolution VI.17, the Standing Committee has established a Subgroup on Finance and that, according to the Report of the Chairperson of the Standing Committee, the Subgroup has functioned efficiently and has provided valuable guidance and advice to the Standing Committee and the Ramsar Bureau; and

6. RECALLING Action 8.2.4 of the Strategic Plan 1997-2002, which reads "*Give priority to funding for training programmes, education and public awareness work, development of the Ramsar Database, and the Convention's Communications Strategy* [now renamed the Convention's Outreach Programme]";

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7. NOTES WITH PLEASURE that for triennium 1995-1997 the Ramsar Bureau has managed the Convention's funds prudently and has ended each year with a small budget surplus;

8. ALSO NOTES WITH PLEASURE that due to careful financial management and exchange rate gains it has been possible during this triennium for the Ramsar Bureau to create a reserve equal to one-twelfth the annual budget, as prescribed by Resolution VI.17;

9. EXPRESSES ITS GRATITUDE to the Contracting Parties that have served in the Subgroup on Finance during the last triennium, and in particular to the United States of America, which acted as Chair of the Subgroup;

10. DECIDES that the Terms of Reference for the Financial Administration of the Convention contained in Annex 3 to Resolution 5.2 shall be applied *in toto* to the 2000-2002 triennium;

11. FURTHER DECIDES that the Subgroup on Finance, as established by Resolution VI.1, shall continue to operate under the aegis of the Standing Committee and with the roles and responsibilities specified therein;

12. APPROVES the budget for the 2000-2002 triennium as attached as Annex I to enable the implementation of the Work Plan 2000-2002 of the Convention, as adopted by Resolution VII.27, to the maximum extent possible;

13. DECIDES that the contribution of each Contracting Party to this budget shall be in accordance with the scale of assessments for the contribution of Member States to the United Nations budget as approved by the UN General Assembly for 2000 (Annex II) and yet to be approved for the years 2001 and 2002, except in the case of Contracting Parties which, in applying the UN scale, would make annual contributions to the Convention Budget of less than SFR 1,000, in which case the annual contribution shall be this amount. The difference between the assessed contribution for these Contracting Parties according to the UN scale and the minimum threshold of SFR 1,000 shall be allocated toward funding the position of a Development Assistance Officer in the Ramsar Bureau. All other Contracting Parties will continue to be assessed in accordance with the UN scale of contributions as indicated in Annex II;

14. URGES the Ramsar Bureau, as human and financial resources allow, to endeavour to secure the additional resources needed in order to establish the post of Development Assistance Officer within the secretariat, with the aim of mobilising resources to facilitate implementation of the Convention by developing countries and those with economies in transition;

15. CALLS UPON all Contracting Parties to pay their dues promptly on 1 January of each year, and URGES Contracting Parties in arrears to make a renewed effort to settle them;

16. REQUESTS the Standing Committee to prepare a proposal for Ramsar COP8 on measures that could be taken in the case of Contracting Parties that are in arrears of two or more years at the time of the ordinary meeting of the COP, taking into account the practice in the United Nations and other intergovernmental bodies, including other conventions;

17. RECALLS Resolution VII.5 adopted at this Conference, relating to the future operations of the Ramsar Small Grants Fund, and URGES all Contracting Parties, donor agencies, International Organization Partners and others to consider making contributions to assist the Convention to reach the target of US$1million per year in disbursements through the Fund;

18. DECIDES to establish a Voluntary Fund for the Convention's Outreach Programme (Resolution VII.9); REQUESTS the Standing Committee to prepare and adopt the Terms of Reference for the Fund at its annual meeting in 1999; and INVITES Contracting Parties, NGOs, foundations, the private sector and other institutions to contribute to the Fund;

19. WELCOMES the partnership between the Convention, the private sector and other agencies under the project entitled "Caring for Water Resources and Water Quality"; and ENCOURAGES the Ramsar Bureau to continue exploring the possibilities for partnership and sponsorship arrangements with the private sector in support of the Mission of the Convention;

20. ENDORSES the programme of internships instituted by the Ramsar Bureau during the last triennium as an effective training scheme and a cost-benefit staff support arrangement for the Regional Coordinators at the Ramsar Bureau; and URGES Contracting Parties to consider adding their contributions to support its continuation and expansion;

21. DIRECTS the Standing Committee to list and prioritize the actions required of the Ramsar Bureau, the Standing Committee, and the Scientific and Technical Review Panel arising from the Convention's Work Plan, Recommendations, and Resolutions adopted at each COP, this to be tabled at the Standing Committee meeting following each COP, indicating which elements are to be funded from the adopted budget;

22. DIRECTS the Ramsar Bureau to report to each COP those actions (as listed in paragraph 21) which were funded and completed in the preceding triennium and those planned actions which could not be implemented, and the reasons for which these could not be completed;

23. REQUESTS the Ramsar Bureau to continue to provide to each COP, in addition to data on core funding, a summary of all additional fund contributions received since the preceding COP; and

24. FURTHER REQUESTS the Ramsar Bureau to identify and cost its priority activities not funded from the core budget that would better implement elements of the Work Plan, and in cooperation with the Standing Committee, seek to raise sponsorship and grants and to provide this updated assessment to each Standing Committee meeting and COP.

Annex 1
Minimum Core Budget 2000-2002

(costs in Swiss francs [000])

		2000	2001	2002
1	**Staff Costs**	1984	2024	2064
	(salaries and social charges)			
2	**Scientific and Technical Services**			
	a) Ramsar Database	135 (1)	138 (2)	140 (3)
	b) Ramsar Advisory Missions	0	0	0
3	**Travel on Official Business**	100	102	104
4	**Purchase/Maintenance of Equipment/ Office Supplies** (including depreciation)	20	20	21
5	**Administrative Services & Operating costs**			
	a) IUCN services: computer/finance/ occupancy/personnel administration	427	436	444
	b) Operating Costs: fax/telephone/photocopy/ clerical help/hospitality/bank charges, etc.	124	126	129
6	**Communications and Reporting**			
	a) Publications/translation/mailing	145	148	151
	b) Newsletter	20	20	21
7	**Subsidiary Bodies**			
	a) Standing Committee delegate support	40	41	42
	b) STRP members' support	40	41	42
	c) Regional representatives' support	10	10	10
	d) Standing Committee chair fund	0	0	0
8	**Conference of the Parties**			
	a) Cost of the conference	0	0	0
	b) Conference delegate support	0	0	0
	Total Core Budget	**3045**	**3106**	**3168**

Wetlands International provides co-financing
(1) for the year 2000 of: SFR 23,700
(2) for the year 2001 of: SFR 21,500
(3) for the year 2002 of: SFR 51,300

Annex 2:

Membership Contributions For The Year 2000

***(Based On The Actual Number Of Parties On 30.06.1999)**

Member State	2000 UN %	2000 Ramsar %*	2000 SFR
Albania	0.003	0.003	1,000
Algeria	0.086	0.087	2,637
Argentina	1.103	1.111	33,822
Armenia	0.006	0.006	1,000
Australia	1.483	1.493	45,474
Austria	0.942	0.949	28,885
Bahamas	0.015	0.015	1,000
Bahrain	0.017	0.017	1,000
Bangladesh	0.010	0.010	1,000
Belgium	1.104	1.112	33,852
Belize	0.001	0.001	1,000
Bolivia	0.007	0.007	1,000
Botswana	0.010	0.010	1,000
Brazil	1.471	1.481	45,106
Bulgaria	0.011	0.011	1,000
Burkina Faso	0.002	0.002	1,000
Canada	2.732	2.751	83,772
Chad	0.001	0.001	1,000
Chile	0.136	0.137	4,170
China	0.995	1.002	30,510
Colombia	0.109	0.110	3,342
Comoros	0.001	0.001	1,000
Congo	0.003	0.003	1,000
Congo, Democratic Rep.	0.007	0.007	1,000
Costa Rica	0.016	0.016	1,000
Côte d'Ivoire	0.009	0.009	1,000
Croatia	0.030	0.030	1,000
Czech Republic	0.107	0.108	3,281
Denmark	0.692	0.697	21,219
Ecuador	0.020	0.020	1,000
Egypt	0.065	0.065	1,993
El Salvador	0.012	0.012	1,000
Estonia	0.012	0.012	1,000
Finland	0.543	0.547	16,650
France	6.545	6.591	200,692
Gabon	0.015	0.015	1,000
Gambia	0.001	0.001	1,000
Georgia	0.007	0.007	1,000
Germany	9.857	9.926	302,249
Ghana	0.007	0.007	1,000
Greece	0.351	0.353	10,763

Guatemala	0.018	0.018	1,000
Guinea	0.003	0.003	1,000
Guinea-Bissau	0.001	0.001	1,000
Honduras	0.003	0.003	1,000
Hungary	0.120	0.121	3,680
Iceland	0.032	0.032	1,000
India	0.299	0.301	9,168
Indonesia	0.188	0.189	5,765
Iran, Islamic Rep.	0.161	0.162	4,937
Ireland	0.224	0.226	6,869
Israel	0.350	0.352	10,732
Italy	5.437	5.475	166,717
Jamaica	0.006	0.006	1,000
Japan	20.573	20.717	630,838
Jordan	0.006	0.006	1,000
Kenya	0.007	0.007	1,000
Latvia	0.017	0.017	1,000
Lebanon	0.016	0.016	1,000
Liechtenstein	0.006	0.006	1,000
Lithuania	0.015	0.015	1,000
Luxembourg	0.068	0.068	2,085
Madagascar	0.003	0.003	1,000
Malawi	0.002	0.002	1,000
Malaysia	0.183	0.184	5,611
Mali	0.002	0.002	1,000
Malta	0.014	0.014	1,000
Mauritania	0.001	0.001	1,000
Mexico	0.995	1.002	30,510
Monaco	0.004	0.004	1,000
Mongolia	0.002	0.002	1,000
Morocco	0.041	0.041	1,257
Namibia	0.007	0.007	1,000
Nepal	0.004	0.004	1,000
Netherlands	1.632	1.643	50,043
New Zealand	0.221	0.223	6,777
Nicaragua	0.001	0.001	1,000
Niger	0.002	0.002	1,000
Norway	0.610	0.614	18,705
Pakistan	0.059	0.059	1,809
Panama	0.013	0.013	1,000
Papua New Guinea	0.007	0.007	1,000
Paraguay	0.014	0.014	1,000
Peru	0.099	0.100	3,036
Philippines	0.081	0.082	2,484
Poland	0.196	0.197	6,010
Portugal	0.431	0.434	13,216
Republic of Korea	1.006	1.013	30,847
Romania	0.056	0.056	1,717
Russian Federation	1.077	1.085	33,025
Senegal	0.006	0.006	1,000

Slovak Republic	0.035	0.035	1,073	
Slovenia	0.061	0.061	1,870	
South Africa	0.366	0.369	11,223	
Spain	2.591	2.609	79,449	
Sri Lanka	0.012	0.012	1,000	
Suriname	0.004	0.004	1,000	
Sweden	1.079	1.087	33,086	
Switzerland	1.215	1.224	37,256	
Syrian Arab Republic	0.064	0.064	1,962	
Thailand	0.170	0.171	5,213	
The FYR Of Macedonia	0.004	0.004	1,000	
Togo	0.001	0.001	1,000	
Trinidad & Tobago	0.016	0.016	1,000	
Tunisia	0.028	0.028	1,000	
Turkey	0.440	0.443	13,492	
Uganda	0.004	0.004	1,000	
Ukraine	0.190	0.191	5,826	
United Kingdom	5.092	5.128	156,138	
Uruguay	0.048	0.048	1,472	
USA (1)		0.000	-	
Venezuela	0.160	0.161	4,906	
Viet Nam	0.007	0.007	1,000	
Yugoslavia	0.026	0.026	1,000	
Zambia	0.002	0.002	1,000	
Totals	74.478	75.000	2,328,222	
Other Contributions (1)	25.000	25.000	761,250	
Total	**99.478**	**100.000**	**3,089,472**	*****

(1) Other Contributions includes the voluntary contribution of the United States of America.

* According to Paragraph 13 of Resolution 28.

Resolution VII. 29

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Thanks to the host country

1. HAVING MET for the first time in a developing country and in the Neotropical region;

2. FULLY AWARE of the significant effort required for the organization of a meeting of the Conference of the Contracting Parties, with, on this occasion, more than 1000 participants from 111 Contracting Parties and 14 observer States;

3. NOTING WITH SATISFACTION that special arrangements and dispensations were made by the Costa Rican authorities to grant visas upon arrival to a large number of participants in order to facilitate their attendance; and

4. HAVING received detailed information on the efforts of Costa Rica to implement the Convention in the most effective manner within its well-developed policy and practices in the area of conservation and sustainable natural resources management;

THE CONFERENCE OF THE PARTIES

5. CONGRATULATES Costa Rica for its pioneering efforts in nature conservation and sustainable natural resources management;

6. EXPRESSES its most sincere gratitude to the Government of Costa Rica, and in particular to the Ministry of Environment and Energy, for the arrangements made to provide excellent facilities for the work of the Conference of the Contracting Parties;

7. FURTHER EXPRESSES its sincere thanks to the non-governmental organizations and the private sector of Costa Rica that have supported the organization of the meeting, to the more than 100 members of local staff who in various capacities contributed to the success of the Ramsar COP7, and to the people of Costa Rica in general for the warm hospitality afforded to all participants; and

8. ALSO EXPRESSES its appreciation to the other Contracting Parties, NGOs and private sector companies from outside Costa Rica that provided assistance to the host country and to the Ramsar Bureau for the organization of Ramsar COP7.

Resolution VII.30

"People and Wetlands: The Vital Link"
7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971), San José, Costa Rica, 10-18 May 1999

Status of Yugoslavia in the Ramsar Convention

1. REFERRING to document Ramsar COP7 DOC. 23 on the status of Yugoslavia in the Convention;

2. NOTING that the Contracting Party 'The Socialist Federal Republic of Yugoslavia' has ceased to exist and has been replaced by five successor states;

3. TAKING INTO ACCOUNT that successor states in general continue to be bound by the treaty obligations of the predecessor state; and

4. ACKNOWLEDGING that three of the successor states to the Socialist Federal Republic of Yugoslavia are Contracting Parties to Ramsar;

THE CONFERENCE OF THE CONTRACTING PARTIES

5. CALLS UPON Bosnia & Herzegovina and the Federal Republic of Yugoslavia to submit to the Depositary a notification of succession to the Ramsar Convention as the other successor states have done.