



*"People and Wetlands: The Vital Link"*  
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Paper 1**

**The Ramsar Convention and Impact Assessment**

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## §1. Introduction

1. Impact assessments have been identified as key tools for assisting the Contracting Parties of the Ramsar Convention in their efforts to achieve the Convention's objectives. In particular, impact assessment tools are key to achieving Objective 2 of the Strategic Plan – developing Ramsar Wise Use Guidelines. Impact assessment tools are a core component of the modern land-use planning and resource management toolkit. This link to the wise use principle is made clear in the Operational Objective 2.5 of the Strategic Plan which calls for Parties to *carry out EIA . . . particularly of proposed developments or changes in land/water use which have potential to affect [wetlands] whose ecological character is likely to change as the result of technological development, pollution or other human influences*. This paper has been prepared in response to Action 2.5.1 of the Strategic Plan which calls for additional guidance on wise use by preparing the results of a review of environmental appraisal guidelines and examples of current best practice in EIA. It has also been prepared in response to Action 2.5.4 which calls for Parties to take account of Integrated Environmental Management and Strategic Environmental Assessment when assessing impacts of development proposals or changes in land or water use. This paper has been prepared in consultation with the Secretariats of the Convention on Biological Diversity (CBD), the Convention on Migratory Species (CMS), and the Ramsar Convention as well as the International Association of Impact Assessment and the OECD. Core materials reviewed in the preparation of this paper include work presented at the 1997 annual conference of the International Association of Impact Assessment held in New Orleans, USA (which had a wetlands theme) and guidelines reviewed in the 1998 version of *A Directory of Impact Assessment Guidelines* by A. Donnelly, B. Dalal-Clayton, and R. Hughes.
2. Impact assessment tools provide a structured and widely accepted approach to analysing project, programmes, plans and policies for their potential impact on the environment, social structures and the economy. Though the situation differs from country to country, impact assessment at the project level (environmental impact assessment – EIA) is widely legislated and implemented (with varying degrees of success). At the programme, plan and policy levels, impact assessment processes (strategic environmental assessment – SEA) are practised on an ad hoc basis and tend to be less developed and rarely legislated. There are, however, some relevant examples of strategic processes undergoing structured analysis to determine their potential impact on the environment, society, and economy. Much work has also been done to develop specialised impact assessment tools such as social impact assessment (SIA), health impact assessment (HIA), and benefit cost analysis (BCA) which take a focused look at, respectively, the social, health and economic impacts of a project programme plan or policy. All of the tools in the impact assessment toolkit have a common set of characteristics important for serving the purposes of the Ramsar Convention.
  - They are structured processes.
  - They rely on a mixture of expert-based analysis and public participation.
  - They provide an opportunity to feed information into decision-making processes.
3. As such, impact assessment tools can help the Parties in their efforts to achieve the objectives of the Convention and enhance their efforts to develop concepts, strategies and tools for the Convention.

4. The Parties have already given much thought to EIA and the Ramsar Convention. In particular, Dave Pritchard's paper (1996) *Environmental Impact Assessment: Towards Guidelines for Adoption Under the Ramsar Convention* presented to the Brisbane Conference of the Parties provides a clear and succinct introduction to EIA vis-à-vis the Convention and proposes a set of [Potential Draft] *Guidelines on EIA as an Aide to the Wise Use of Wetlands* (Appendix to the 1996 document). Additionally Mr. Pritchard has prepared a summary of Convention references and previous conference decisions relating to EIA (available in the Annex to Recommendation 6.2). These references, documents and decisions set the foundation for this paper and their ideas are incorporated throughout.
5. The wide variety of impact assessment tools, along with the diversity of services impact assessments can perform for the Ramsar Convention, means that there are a number of issues which could be addressed in this paper, including:
  - Collaboration with other biodiversity-related conventions;
  - The role of strategic environmental assessment as a tool for Parties;
  - Public participation in impact assessment processes and involving local and indigenous peoples in management and decision-making;
  - Linkages between impact assessment and wetlands monitoring and assessment;
  - Impact assessment as an opportunity to incorporate economic values into decision-making processes; and
  - Creating legislation and guidelines which ensure that wetland issues are addressed in impact assessments.
6. Though each of these issues is an important element in strengthening impact assessment tools for the Convention's purposes, the first three issues have been highlighted by the Bureau as priorities. Therefore, in the interest of brevity, this paper will address these three in individual sections and review the others more succinctly in a single section. Thus section §2 opens with an overview of what is happening in other convention processes on the topic of impact assessment and draws linkages and points for collaboration between the various conventions. This section serves to highlight a number of issues which need to be addressed when developing impact assessment tools for the multilateral environmental agreements (MEAs). Section §3 addresses the topic of SEA, identifying how it can help Parties improve their implementation of the Convention and flagging potential problems with implementing SEAs effectively. Section §4 looks at public participation issues in the EIA process and, in particular, the involvement of indigenous and local communities as called for in the Ramsar Convention COPs. Section §5 introduces some ideas about linkages between impact assessment and wetlands assessment, highlights how impact assessment processes can be used to bring economic values into decision making, and reviews how legislation and guidelines can be used to strengthen impact assessment as a tool for wetlands conservation and wise use. The concerns and ideas expressed in these issues-related sections are summarised in the concluding section, which also highlights a number of priorities for the Parties of the Convention.

## §2. Collaborating with biodiversity-related conventions

7. Collaboration between the conventions is of increasing importance to the Parties of the MEAs. This section is based on, and draws upon, a number of ongoing activities including:
  - Memoranda of Understanding and Cooperation signed between Ramsar and the Convention on Biological Diversity (CBD), the Convention on Migratory Species (CMS), and the Convention to Combat Desertification (CCD). In particular, the MOC with the CBD is supported by a Joint Work Plan which elaborates how the two conventions plan to cooperate on the topic of impact assessment and minimising adverse impacts. The Joint Work Plan suggests that the guidelines be made available in the Wise Use Resource Centre in order to provide access to Parties of both convention processes. Additionally, the MOU with CMS identifies impact assessment as an item for ‘institutional cooperation’ between the conventions and states that the two secretariats will coordinate work on future guidelines such as those for impact assessment;
  - CBD Decision IV/10c which requests its secretariat to work with the secretariats of Ramsar and CMS as well as with IAIA and IUCN on the topic of impact assessment;
  - Paragraph 8 of the Ramsar Strategic plan which calls for the Convention’s technical work to become more closely related to the broader concerns of the CBD and its traditional involvement with waterbirds to become more clearly linked to the CMS.
8. Because these biodiversity-related convention processes have addressed varying aspects of the impact assessment issues in their work to date, specific points for collaboration will run throughout the rest of this paper. In particular, the opening lines of each of the issues-based sections will review work done in relevant convention processes. This section will give a more detailed review of the benefits of collaborating and demonstrates more broadly how the various conventions can work together to develop impact assessment tools for biodiversity.
9. Clearly, impact assessment is a topic relevant to all of the ‘biodiversity-related’ conventions (CBD, CMS, Ramsar, World Heritage, CITES, CCD), and it provides an opportunity for substantive collaboration among them. Though the term impact assessment is not included in the original text of the older biodiversity-related conventions such as Ramsar, perhaps because of its relative youth at the time of their drafting (impact assessment first emerged as a process in 1969 with the US National Environmental Planning Act), the term is present in the text of the newer conventions and in the more recent decisions of the older ones.
10. The Rio Declaration on Environment and Development calls for EIA to be undertaken for proposed activities likely to adversely impact the environment (1992). Article 14 of the CBD asks Contracting Parties to introduce EIA procedures and *appropriate arrangements to ensure that the environmental consequences of its programmes and policies . . . likely to have significant adverse impacts . . . are duly taken into account* (Glowka, L. et. al. 1994). The COP of the Ramsar Convention has recommended that Parties apply EIA to proposed projects which may adversely impact wetlands. Several of these processes – the CBD and Ramsar in particular – are looking into the possibility of providing guidance to Contracting Parties on the topic of impact assessment.

In light of ongoing efforts to identify and act on points of synergy among the conventions, **it would be advantageous to join these efforts together and arrive at an umbrella set of guidelines on impact assessment for the biodiversity-related conventions.**

11. Already three of the MEAs (CBD, CMS and Ramsar) have started to work together on the topic under the chapeau of CBD Decision IV/10c which asks its secretariat to work with the secretariats of CMS and Ramsar as well as with the International Association of Impact Assessment (IAIA) and IUCN. Because of their different levels of focus (CMS on the species level, Ramsar at the ecosystem level, and the CBD as an umbrella), each of the conventions lends a particular strength to the process of defining the role of impact assessment tools in the convention processes.
12. Through its numerous agreements, the CMS provides a significant amount of species-level detail necessary for the various stages of impact assessment. For instance, the Agreement on the Conservation of Cetaceans of the Black and Mediterranean Seas and Contiguous Atlantic Areas requires that relevant Parties carry out impact assessments for projects affecting cetaceans or their habitat including fisheries, offshore exploration and exploitation, nautical sports, tourism and cetacean-watching. Thus the proposal of any of these activities sets off the impact assessment process within these countries. This level of detail – listing activities to include when screening for EIAs – is possible because of the focus on a single group of species. The drawback to this approach is that only species listed under an agreement will trigger EIAs and only in signatory countries. The strength lies in the fact that they are sure to trigger EIAs in those instances.
13. At the ecosystems level of biodiversity the Ramsar Convention has been able to list activities related to wetlands in general which should trigger a screening procedure. The designation of Ramsar sites also provides the opportunity to require any project, programme, plan or policy affecting the site to be subjected to an impact assessment. Additionally, the Parties could choose to require impact assessments for projects, programmes, plans and policies negatively impacting on attempts to conserve or wisely use wetlands in their territory. This is particularly relevant to Article 3.1, which calls for Parties “to formulate and implement their planning so as to promote the conservation of the wetlands”. For such a requirement to be affective, the Parties would need to list specific activities, policies, plans and programmes which are likely to impact on wetlands for the purposes of screening proposals. Thus, the Ramsar Convention could establish two sets of triggers for impact assessment processes – one which reacts to any proposals likely to affect wetlands on the List, and another which screens proposals guided by listed activities, policies, programmes, or plans. These two triggers would provide double the assurance that potentially harmful activities are subjected to rigorous impact assessment procedures.
14. The CBD offers an opportunity to bring the genetic, species and ecosystem levels of biodiversity together. The absence of distinct binding agreements or listed sites under the CBD means that efforts to apply impact assessment tools towards its implementation would be significantly strengthened by collaboration with both Ramsar and the CMS. CBD Decision IV/10c asks the secretariat of the CBD to work with the Ramsar Bureau, the secretariat of the CMS, IAIA and IUCN on the topic of impact assessment. Representatives from these five

institutions met in December 1998 to review what had already been done on the topic in the biodiversity-related conventions and to discuss opportunities for working together in the future. The group arrived at a draft work programme which consists of three components:

- a) **Impact assessment and the biodiversity-related conventions.** This component will develop impact assessment tools for the conventions as well as bring the impact assessment and biodiversity communities closer together. Activities under this component include this discussion paper and another for CBD SBSTTA4, recommendations for Ramsar COP7 and CBD SBSTTA4, and briefing sessions at the CMS, World Heritage, and CITES COPs.
  - b) **Impact assessment and biodiversity assessment.** This component will forge linkages between impact assessment and other assessment processes. Activities will include workshops at the IAIA'99 annual conference and the GBF just prior to SBSTTA4 as well as input into SBSTTA4 and 5 and the Ramsar STRP.
  - c) **Impact assessment and information sharing.** This component will compile and disseminate materials generated and lessons learned in the two other components. Activities include Web sites for workshops and events, a roster of experts on biodiversity and impact assessment, impact assessment-based resource kits, and impact assessment capacity building and training.
15. Coordination among the conventions, both through the secretariats and within the Administrative Authorities of the Contracting Parties, should continue to be encouraged and supported by the CBD, CMS and Ramsar Conferences of the Parties. The 7<sup>th</sup> Conference of the Parties has a number of opportunities for expressing such support. For instance, when considering the 'Technical Guidelines for Reviewing Laws and Institutions to Promote the Conservation and Wise Use of Wetlands' (COP7 Document 15.7), the COP could encourage Parties to review their EIA legislation and guidelines for its compatibility with and inclusion of the objectives of the biodiversity-related conventions. The COP could support the draft work programme mentioned above. Additionally, the Ramsar Parties could express interest in participating in an expert advisory group on impact assessment if one is established by the CBD SBSTTA4.

### §3. SEA: a tool for legal and institutional review and for creating the right incentives

16. Strategic environmental assessment (SEA) is the *formalised, systematic and comprehensive process of evaluating the environmental effects of a policy, plan or programme and its alternatives, including the preparation of a written report on the findings of that evaluation, and using the findings in publicly accountable decision-making* (Therivel et. al. 1992). It provides a structured process of analysing the economic, social and ecological impacts of programmes, plans and policies and of identifying alternative economic incentives for conserving and wisely or sustainably using wetlands. SEA differs from EIA in that it is applied to policies, plans and programmes rather than to projects. It addresses a number of the shortcomings of EIA in that it is capable of addressing the cumulative impacts of projects, it is capable of addressing the issue of induced impacts (where one project stimulates other development), it can address synergistic impacts (where the

impact of several projects exceeds the sum of the individual project impacts), and it can address global impacts such as biodiversity loss.

### §3.1 SEA and Convention objectives of reviewing and redesigning legal and institutional frameworks

17. The structured procedure of SEA means that it can be used as a tool for reviewing and amending legislation, institutions and practices to ensure the wise use of wetlands (Operational Objective 2.1). Additionally, as a part of this review process, SEA can provide a means of designing appropriate incentive measures for wetland conservation and wise use. In this way SEA is closely linked both to the legal and institutional review issues which are being discussed in COP7 Technical Session II and to the incentive measures issues being discussed in Technical Session III.
18. All of the biodiversity-related conventions acknowledge the importance of integrating conservation and sustainable use objectives into sectoral planning and policy processes. This need emerges from a recognition that biodiversity loss at the genetic and species levels as well as at the ecosystem level is largely caused by activities undertaken in the economic sectors such as tourism, industry, agriculture, fisheries, forestry and mining. The CBD calls for Parties to “*integrate consideration of the conservation and sustainable use of biological resources into national decision-making*” (CBD Article 10a) and to “*integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies*” (CBD Article 6b).
19. The Parties to the Ramsar Convention have agreed under the wise use concept to “*formulate and implement their planning so as to promote . . . as far as possible the wise use of wetlands in their territory*” (Article 3.1). The guidance for implementing the wise use concept (provided in the Annex to Resolution 5.6) explicitly recognises that social and economic factors are the main reasons for wetland loss and suggests that Parties create inter-ministerial boards or commissions to oversee coordination and cooperation for wetland management. The guidelines suggest that these National Ramsar Committees include government agencies dealing with economic and social as well as environmental sectors (including agriculture, forestry, aquaculture, hunting, fishing, shipping, tourism, mining, industry, health and development assistance). Furthermore, the guidance recommends the periodic review of existing legislation to ensure its compatibility with wise use obligations and make adjustments where necessary. Explicitly mentioned in this section is the need to adjust taxes and subsidies which encourage the destruction of wetlands and to create financial incentives to encourage activities compatible with the maintenance of wetlands and which promote their conservation. In other words, Parties have agreed to design and implement incentive measures for the conservation and wise use of wetlands.
20. Both the CBD and Ramsar Conventions also recognise the role of SEA as a tool for undertaking this review and redesign of policies, plans and programmes in order to integrate the conservation and sustainable use of biodiversity and wetlands. The CBD calls for Parties to “*introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account*” (CBD Article 14b). The Ramsar Strategic Plan Action 2.5.4 establishes the role of SEA in this process by calling for the application 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”.*

### §3.2 SEA in Practice

21. Because SEA is still in the early stages of application, there are few examples of complete SEA processes which have been applied to wetland issues. Clare Brooke (1997) provides an overview of SEA as relevant to water resources planning in Europe in a paper presented at the IAIA'97 annual meeting. She concludes that elements of SEAs are apparent in a study of hydrological planning in the Tajo river basin in Spain, but that hydrological planning is still demand-driven and environmental protection is of secondary importance. She does, however, identify a number of strengths of SEA such as:
  - allowing environmental issues to be considered earlier in decision-making;
  - enabling the identification of conflicting objectives within policies;
  - identifying responsibilities for environmental protection;
  - setting the context for lower-level assessments (such as project EIAs);
  - considering non-project related impacts;
  - enabling the meaningful consideration of alternatives; and
  - providing baseline information for lower-level assessments.
22. This last point is particularly interesting when considering the linkages between impact assessment and wetlands assessment processes. Not only can SEAs provide a baseline for EIA data collection and monitoring, but an SEA can establish common collection and monitoring techniques so that information collected by one EIA can be useful for other EIAs as well as feed into ongoing wetland and biodiversity assessment processes.

#### **Box 1: Stages in SEA**

1. Decide whether the programme, plan or policy (PPP) needs an SEA
2. Describe the PPP's objectives and other objectives
  - a. Identify alternatives for the PPP
  - b. Describe the PPP
3. Identify key impacts and their boundaries
  - a. Establish indicators and targets
  - b. Describe current and likely future environmental baseline
  - c. Identify problem areas in consultation with the public
4. Predict impacts, cope with uncertainty
  - a. Evaluate impacts
  - b. Compare alternatives
5. Propose mitigation measures (including incentives)
  - a. Propose monitoring and assessment
6. Review SEA report, make 'formal' PPP decision
7. Implement PPP, monitor PPP's impacts and achievement of its objectives



<i>from Therival and Thompson 1996</i>
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23. Though UK focussed in their examples, Therival and Thompson provide a clear and concise overview of SEA as it relates to nature conservation in general in *Strategic Environmental Assessment and Nature Conservation* (Therival, R and Thompson, S. 1996). In describing the stages of an SEA process (see Box 1), Therival and Thompson demonstrate for each stage how nature conservation issues have been and can be addressed.
24. For instance, in describing how nature conservation issues can be brought into the objective setting stage of an SEA, Therival and Thompson point out that commitments to international agreements could be included among the objectives and may even be considered binding objectives to reflect an element of commitment. Additionally, Therival and Thompson recommend using a matrix to determine the compatibility between programme, plan or policy objectives and sustainability aims. Such a matrix could also be adapted to determine compatibility with commitments to the Wise Use Guidelines. Scoping is a key stage for ensuring that potential impacts on the ecological character of wetlands are identified and examined in the SEA. It is then necessary to identify relevant indicators for measuring and representing environmental trends which can then help to set appropriate targets. These indicators can be state of the environment indicators (i.e., related to the ecological character descriptions of the wetlands), impact or pressure indicators (i.e., number of Ramsar listed sites which are listed as on the Montreux Record), or action indicators (i.e., policies reviewed and amended to integrate wetlands conservation and wise use issues). In proposing mitigation measures (stage 5), Therival and Thompson highlight a number of ways of incorporating nature conservation into the SEA including:
  - planning future developments to avoid sensitive habitats (such as wetlands);
  - placing constraints on lower tier PPPs (such as projects);
  - establishing new areas for nature conservation and controlled uses;
  - managing existing areas of nature conservation or expanding them; and
  - public awareness.
25. Also, the design and implementation of incentive measures for the conservation and wise use of wetlands should be included in this list of possible mitigatory measures.

### §3.3 Hurdles to implementing SEA for wetland conservation and wise use

26. Of course, there are a number of hurdles to overcome in the implementation of SEA for wetlands conservation and wise use. SEA has traveled through the legislative process slowly for a number of reasons. Importantly, policy, plan and programme processes are often nebulous – having no clear starting or stopping points – making it difficult to apply a structured process of analysis to determine their potential impacts and possible mitigation measures. The Ramsar Convention’s advocacy of a legal and institutional review process would overcome this issue, in that it provides the ‘starting point’ for policy review and development.

27. Additionally, there has been some debate about what level of policy, plan or programme to apply SEA to – whether it be applied only to those PPPs which require consent and therefore go through an approval process, or whether it be applied to the whole range of PPPs. This is related to the issue of the nebulous planning process mentioned above, but is more directly concerned with the stopping point or decision-making point of PPPs. Again, other work under the Ramsar Convention suggests a way of overcoming this hurdle. The Convention's commitments to formulate planning so as to promote the wise use of wetlands as well as the recommendation to establish National Ramsar Committees under the legal and institutional review and processes such as the National Biodiversity Strategies suggest that a more holistic approach to SEA application is compatible with Ramsar objectives.

#### **§4. Public participation and involving stakeholders including indigenous and local communities**

28. Impact assessment processes at all levels – project, programme, plan and policy – provide formal structures for bringing local and indigenous people into decision-making and management processes. Public participation is often required in EIA legislation at the national level, and is viewed by impact assessment professionals as a key component of successful impact assessment procedures (Pakistan EPA, 1997). Having the public involved in the development phases of a project strengthens the project, helps gain public support, and leads to improved monitoring and evaluation processes linked to the project. In this way, the monitoring and evaluation of project impacts, mitigation measures and restoration activities are more likely to be effective and efficient.

##### **§4.1 Public participation and Convention objectives of involving local and indigenous communities**

29. Structured impact assessment processes ensure that the public has an opportunity to become involved in project, programme, plan and policy development as well as in decision-making processes. By requiring public participation in EIAs and SEAs, Parties can take a step towards ensuring that at a local level they have *established procedures to guarantee that local populations are involved in the decision-making process related to wetland use and to provide local populations with sufficient knowledge of planned activities to assure their meaningful participation in this decision-making process* (Annex to Resolution 5.6). This strengthening of participation requirements in impact assessments would also help Parties meet objectives 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* (Recommendation 6.3). These are also closely related to Objective 2.7 and Action 2.7.4 of the Strategic Plan.
30. The CBD also acknowledges the importance of involving local and indigenous communities in conserving and sustainably using biological resources. In particular, Article 8j requires Parties to *respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities*. Decision IV/9 of the CBD COP regarding the implementation of Article 8j establishes a working group on the topic and sets out a number of activities for this group

including the development of projects *in support of the development of national legislation and corresponding strategies on the implementation of Article 8j*.

31. This leads to another aspect of public participation vis-à-vis the biodiversity-related conventions. Activities carried out under the auspices of the conventions, such as the inclusion of a wetland on the Ramsar List, are likely to have socio-economic impacts on local and indigenous communities. These socio-economic impacts of wetland-related projects should be identified and (where negative) mitigated or (where positive) emphasised. The *Guidelines for establishing participatory processes to involve local communities and indigenous people in the management of wetlands* (Ramsar COP7 Document 15.8 presented in COP7 Technical Session III) emphasise the need to create incentives to ensure that local and indigenous communities benefit from the wise use of wetlands. Subjecting wise use policies, programmes, plans and projects to impact assessment procedures which assess socio-economic impacts is one way of ensuring that appropriate incentives are implemented.

## §4.2 Public participation in practice

32. One example of how the socio-economic impacts of a wetlands project can be dealt with is provided by the Waza-logone Project in the north of Cameroon. The EIA of this floodplain restoration project identified a number of negative socio-economic impacts such as the loss of irrigated rice fields and forestry resources. The EIA process ensured that such impacts were considered and pointed to some possible mitigation measures, thereby avoiding unnecessary conflict with local communities and helping to ensure that the project is more sustainable and socially accepted (Bitondo, 1995b).
33. The BHP operations in Liverpool Bay in the UK provide a good example of how EIA can lead to public involvement in monitoring and assessment processes. The EIA for this near-shore oil and gas operation, located near three Ramsar sites, spurred a number of long-term activities including an environmental management system for the operations; the restoration of a number of wetlands; and the appointment of a resident ecologist. The local community has been involved in the management of restored wetlands as well as the ongoing monitoring of impacts and mitigation measures (IPIECA and E&P Forum, 1997). This study demonstrates how thorough public participation in the EIA process can lead to a number of positive outcomes including:
  - improved monitoring and assessment processes;
  - community support and understanding of the project;
  - community participation in the management of biological resources;
  - improved impact identification and mitigation (often as a result of the incorporation of local and traditional knowledge into decision-making processes); and
  - improved design and implementation of mitigation measures (which may include community-based incentive measures).
34. These strengths are similar to those highlighted by the *Guidelines for establishing participatory processes to involve local communities and indigenous people in the management of wetlands* (Ramsar COP7 Document 15.8). These guidelines provide a useful foundation for involving local and

indigenous communities in EIA and SEA processes. To this solid foundation, the Parties should examine Social Impact Assessment (SIA) processes in more detail, especially when trying to determine the socio-economic impacts of wise use projects.

## §5. Other issues

### §5.1 How EIAs have addressed wetland issues in practice

35. The COPs of Ramsar and the CBD have both called for the review of existing EIAs in order to determine how well wetland and biodiversity issues are addressed in practice (Ramsar Recommendation 6.2, Annex to Resolution VI.1, and Operational Objective 2.5 of the Strategic Plan, as well as CBD Decision IV/10c). IAIA and IUCN have both been involved in assisting Ramsar and the CBD in identifying and analysing relevant examples of EIAs. In particular, the 17<sup>th</sup> Annual Conference of IAIA held in 1997 focused on wetland issues, encouraging EIA practitioners from around the world to submit examples and experiences of dealing with wetland issues in EIA processes.
36. Ramsar's Strategic Plan points out that in addition to being cradles of biodiversity, wetlands provide a number of important services to human societies (including water supply, sanitation, flood control and food resources). The mission of the Convention is the conservation and wise use of wetlands by national action and international cooperation as a means of achieving sustainable development throughout the world (Ramsar Strategic Plan for 1997-2002). In the context of Ramsar, wise use is defined as *sustainable utilisation for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem*. Has the EIA process, as practised, assisted in the conservation and wise use of wetlands?
37. The response is, not surprisingly, a mixed review. A number of studies demonstrate how a Ramsar designation can either trigger the initial impact assessment process or provide the impetus for a more detailed investigation than would otherwise have taken place (IPIECA, 1997; Scholten, 1997). For instance, when BHP realised, through their EIA process, that their activities in the Liverpool area overlapped three Ramsar sites, they conducted a more detailed investigation of the possible impacts of their project. But some of these same studies demonstrate that Ramsar designation alone is not enough to protect some areas from intensive development. For instance, Scholten (1997) states that "*the reclamation of land from the wetland area to the east of Amsterdam will result in the loss of a considerable area of an internationally valued [and Ramsar listed] shallow freshwater ecosystem*". More often, the studies demonstrate how EIAs can provide an opportunity to redesign projects (Scholten, 1997; IPIECA, 1997). Additionally, a number of the studies examined demonstrate how EIAs help identify appropriate mitigation and compensation measures (Bitondo, 1995). Additionally, a study of the restoration of hydrological conditions in the Waza Logone floodplain (Bitondo, 1995) demonstrates that Ramsar status and information can assist restoration projects.

### §5.2 Legislation and guidelines for EIA

38. In addition to calling for the review of examples of EIAs in practice, the CBD and Ramsar COPs have requested the review of existing EIA guidelines and legislation. Generally

speaking, EIA legislation provides a broad overview of the requirements of the EIA process and identifies the roles and responsibilities of project proponents, decision-makers, local authorities, statutory consultees and other relevant players. Country level legislation sets out minimum standards, types of projects which require EIAs, lines of reporting, and methods of public notification and participation. Guidelines are the tool most often used to provide more detail for methods of addressing more specific issues such as how to conduct an EIA in a wetland ecosystem. Before moving on to guidelines, though, it is relevant to point out that the Ramsar status can and is used in EIA legislation (in the UK, for instance) as a trigger for impact assessments. This means that any project proposed to take place in or within a prescribed distance of a Ramsar site would be required to undergo a full EIA. Such requirements help ensure that Parties are able to achieve the objective set out in Article 3.2 which states that Parties shall arrange to be informed if the ecological character of a wetland on the List is likely to change.

39. There are a host of guidelines available for conducting EIAs. These are generally put out by governments, multilateral development banks, bilateral donor agencies, United Nations agencies, and intergovernmental organizations.
40. A. Donnelly, B. Dalal-Clayton and R. Hughes (1998) have recently updated a compilation of all such guidelines in *A directory of Impact Assessment Guidelines, Second Edition*. In their summary table, Donnelly et. al. (1998) highlight over 30 references to wetlands and water resources in EIA guidelines around the world. Some of these references are quite weak in terms of meeting the objectives of the Ramsar Convention (for instance, the mention of water pollution as a potential impact to be considered), but other guidelines go into more detail regarding the conservation and wise use of wetlands. A number of countries and agencies (Bangladesh, Columbia, France, Germany, Nepal, Peru, Slovakia, Spain, Thailand, the UK, Zimbabwe, Japan's JICA, Norway's NORAD, the UN Economic and Social Commission for Asia and the Pacific, the World Bank, and WHO) have developed guidelines for assessing the impacts of water resources projects (such as hydro-electric dams and flood defence projects). The Economic and Social Commission for Asia and the Pacific has produced a number of guidelines for water resource development and coastal environmental management, the latter of which takes an ecosystem perspective in identifying a number of development activities which may impact on coastal zones (Donnelly, A. et. al. 1998). The Indian government also takes an ecosystem approach with guidelines for developments taking place on beaches or in river valleys. Indonesia's approach is broader still, with guidelines for wetlands which explain how scoping processes should be carried out in wetlands. The EIA Guidelines for Flanders also follow an ecosystem perspective and address water as a separate discipline. The Italians have produced a guide to indicators for water which are to be used in EIAs. The Swiss government has identified EIA as a process which can help protect wetlands in their guide *Le Domaine Protection des Eaux et Peche dans le Cadre d'une EIE*. Costa Rica has developed a guide specifically for conducting EIAs in public watersheds.

### §5.3 EIA and incorporating values into decision-making processes

41. Ramsar Recommendation 6.10 on the promotion of cooperation on the economic valuation of wetlands recognises valuation as an important tool for wetlands conservation and wise use.

But for valuation to be a tool for the Ramsar Convention, the economic values of wetlands need to somehow influence decision-making processes. This vitally important link between values and decisions is recognised in Operational Objective 2.4 of the Strategic Plan. Impact assessment provides a mechanism for integrating economic values of wetlands into decision-making processes, thereby increasing the likelihood of valuation studies influencing policy, plans, programmes or projects. Parties can help ensure that realistic values are attributed to wetlands in decision-making processes by requiring, where appropriate, the application of valuation methodologies in impact assessment processes.

#### **§5.4 Strengthening monitoring and assessment**

42. Monitoring and assessment processes are necessary to establish whether the ecological character of wetlands in a Party's territory is impacted by human activities. Resolution VI.1 discusses the importance of establishing and implementing adequate monitoring and assessment processes and Resolution VI.13 links such monitoring to the issue of threats. Ramsar COP7 Document 15.10 on the 'Wetland Risk Assessment Framework' takes this issue forward and proposes a framework of linking early warning systems with management planning processes. Impact assessment processes also provide an opportunity to strengthen and use these ongoing risk assessment and monitoring processes and can spur additional monitoring. As demonstrated in Section 4.2 above, the public participation processes in impact assessments can strengthen the monitoring and assessment related to an EIA. Additionally, as Therival and Thompson (1996) point out, SEA processes can initiate ongoing monitoring and assessment exercises which should feed into wetlands monitoring related to the Ramsar Convention. On the other side of the coin, the Ramsar-related monitoring and assessment processes should collect data potentially relevant to EIAs and SEAs, and information gathered through these processes should be accessible to the impact assessment community. Linking impact assessments with wetlands assessments would be a cost-effective way of gathering more and more accurate information about wetlands throughout the world.

#### **§6. Conclusions and priorities**

43. The conclusions and priorities leading from this paper are reflected in the draft decision prepared for the 7<sup>th</sup> Conference of the Parties of the Ramsar Convention.

## Bibliography

Bitondo, D. and D. Ngantou. 1995a. *Etude Preliminaire du Programme de Revitalisation des Vallees Fossiles du Senegal*. IUCN, Senegal.

Bitondo, D. 1995b. *Termes de reference pour la Realisation de l'Etude d'Impact du Project de Reinondation de la Plaine du Fleuve Logone*. IUCN, Cameroon.

Brooke, C. 1997. *Strategic EIA and Water Resources Planning in Europe*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. Available at <http://economics.iucn.org/kits-03-00.htm>.

Chile. 1997. *General Environmental Law*. National Commission on the Environment, Chile.

Chile. 1997. *Regulations for the Environmental Impact Assessment System*. National Commission on the Environment, Chile.

Conover, S. 1997. *Fitting Environmental Assessment In: Water Supplies for Mega-Urban*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. Available at <http://economics.iucn.org/kits-03-00.htm>.

Cruz, M. and S. Davis. 1997. *Social Assessment in World Bank and GEF-Funded Biodiversity Conservation Projects*. World Bank environment Department Paper No. 043 in the Social Assessment Series. Washington DC, USA.

DETR. 1998. *Review of Technical Guidance on Environmental Appraisal*. Department of the Environment, Transport and the Regions. London, UK.

Donnelly, A., B. Dalal-Clayton and R. Huges. 1998. *A Directory of Impact Assessment Guidelines: Second Edition*. IIED. Russell Press, Nottingham.

Hazell, S. and H. Benevides. 1997. *Federal Strategic Environmental Assessment: Towards a Legal Framework*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. Available at <http://economics.iucn.org/kits-03-00.htm>.

IFC. 1998. *Operational Policies: Environmental Assessment*. Washington DC, USA.

IPIECA and E&P Forum. 1997. *The Oil Industry: Operating in Sensitive Environments*. London, UK.

Lee, J. and B. McCourt. 1997. *A Review of the environmental Assessment of a Component of the Lesotho Highlands Water Project (Matsoku Diversion Dam)*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

Lowerre, R. 1997. *A Binational Aquifer and River System*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

Mario, E. 1997. *Social Assessment in World Bank Operations in Latin America: Lessons Learned*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

Ministry of the Environment Finland. 1996. *Environmental Impact Assessment for Better Planning in Finland*. Helsinki, Finland.

Office federal de l'environnement, des forets et du paysage (Switzerland). 1990. *Le Domaine Protection des Eaux et Peche dans le Cadre d'une EIE*. Bern, Switzerland.

Office federal de l'environnement, des forets et du paysage (Switzerland). 1991. *Protection de la nature et du Paysage et Protection du Patrimoine lors de l'Elaboration de Rapports d'Impact*. Bern, Switzerland.

Office federal de l'environnement, des forets et du paysage (Switzerland). 1991. *Recommendations pour l'Elaboration du Domaine 'Qualite des Sols' dans un Rapport d'EIE*. Bern, Switzerland.

Pakistan Environmental Protection Agency. 1997. *Guidelines for Public Consultation*. Pakistan.

Pritchard, D. 1997. *International Cooperation in Applying ELA to Wetland Conservation*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

Ramsay, D. 1994. *Nature Conservation in Environmental Assessment*. Report carried out for English Nature by Environmental Resources Ltd. Peterborough, UK.

Rimmel, V. and J. Forry. 1997. *SEA Implementation in the Czech Republic*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>..

Scholten, J. 1997. *The Role of ELA in Land Reclamation of a Wetland Area for Urban Expansion of Amsterdam*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

Shandler, D. and S. Granger. 1997. *Water Resource Management and Conflict in South Africa: Experiences from the Western Cape*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

Therivel, R. and S. Thompson. 1996. *Strategic Environmental Assessment and Nature Conservation*. Report to English Nature. Peterborough, UK.

Tilden, D. and J. Frehs. 1997. *Environmental Assessment Decisions Using the Environmental Assessment Valuation Reference Inventory TM (EVRITM)*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

Wiseman, K. 1997. *Environmental Assessment and Planning in South Africa: The SEA connection*. Presented at the 17<sup>th</sup> Annual Conference of IAIA. . Available at <http://economics.iucn.org/kits-03-00.htm>.

World Bank. 1997. *Biodiversity and Environmental Assessment*. Environment Department Sourcebook Update. Washington DC, USA.