The Ramsar Convention on Wetlands: Has it Made a Difference?

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Introduction

We left her standing upon the thin peninsula of firm, peaty soil which tapered out into the widespread bog. From the end of it a small wand planted here and there showed where the path zigzagged from tuft to tuft of rushes among those green-scummed pits and foul quagmires which barred the way to the stranger. Rank reeds and lush, slimy water-plants sent an odour of decay and a heavy miasmatic vapour into our faces, while a false step plunged us more than once thigh-deep into the dark quivering mire, which shook for yards in soft undulations around our feet. Its tenacious grip plucked at our heels as we walked, and when we sank into it it was as if some malignant hand was tugging us down into those obscene depths, so grim and purposeful was the clutch in which it held us.

Afficionados of tales of criminal detection will doubtless recognize this passage as an extract from Sir Arthur Conan Doyle's famous story *The Hound of the Baskervilles*,[1] where Sherlock Holmes and his stalwart companion Dr Watson pursue their quarry across the grim reaches of the Grimpen Mire. The Mire (which elsewhere in the book is variously described, along with the moors which surround it, as wild, desolate, lifeless, treacherous, mean, melancholy, God-forsaken, dismal, gloomy, and ill-omened) serves both as a suitably menacing backcloth to the chilling tale of the ghostly hound which haunts the Baskerville family and as a metaphor for the mystery in which the two heroes find themselves floundering, albeit temporarily.

In fact this thoroughly negative image of swamps, marshes, fens, mires, bogs, and other wetlands is one that has persisted in human consciousness throughout time. Holdgate has reminded us that Grendel, 'the monster in Beowulf, the earliest epic in the English language, "held the moors, the fen and the fastness" and ravaged Seeland from his swampy home',[2] while similar ideas have been encapsulated in folk songs and stories over the centuries.[3] These unfavourable perceptions have been strongly reinforced by the realization that wetlands form the breeding grounds of *Anopheles* mosquitoes, which are the carriers of the potentially fatal disease malaria. Given their profound lack of appeal in human estimations, the most favourable treatment that wetlands have traditionally been able to expect has involved malign neglect, while in many cases they have come under direct and deliberate attack. Commonly this has taken the form of destruction of their natural characteristics through drainage, either for the creation of agricultural or residential land or simply in order to combat the insect foe. Although the traditions of 'aquatic' civilizations, which adapted themselves to the rigours and perturbations of natural water cycles, have persisted in some parts of the world, many regions have seen the adoption of a 'hydraulic' culture, which has sought to regulate and control water flow through the construction of dams, dikes, and similar devices. As a consequence, over half of the wetlands that are thought formerly to have existed in the United States, for example, have now disappeared. Some experts believe this rate of loss to be in line with that experienced globally. In the case of particular wetland types, such as peatlands, the extent of loss may be much greater. In general, moreover, this transformation has been viewed either as a small price to pay for the resulting benefits, or as a desirable end in itself.[4]

In view of this long tradition of human antipathy, it is perhaps surprising to note that February of each year now witnesses the commemoration around the globe of World Wetland Day, intended in large part as a celebration of the virtues and values of wetland ecosystems. The year 2002 marks the sixth such occasion, the event having been inaugurated in 1997 as a result of a decision taken the previous year at the sixth (Brisbane) meeting of the Conference of the Parties (CoP) to the Convention on Wetlands of International Importance.[5] The CoP in fact called for the designation of a week of commemoration centred around the date of 2 February, the day upon which the convention had itself been adopted at Ramsar, in Iran, some 25 years previously.

This seemingly dramatic turnabout in human attitudes towards wetlands has been occasioned by the growing realization of the many vital functions performed by wetland ecosystems. As one eminent authority has put it:[6]

Wetlands perform a wide range of functions that are essential for supporting plant and animal life and for maintaining the quality of the environment. These functions include: flood control; shoreline stabilization; sediment, nutrient and toxicant retention; and food chain support.

On the final point specifically he notes that 'two-thirds of the fish we eat depend on wetlands at some stage in their life cycle' and that, 'in the Gulf of Mexico alone, 90 per-

cent of the fish harvested are wetland-dependent species'.[7] For many people, particularly perhaps in the developed world, it is the importance of wetlands as waterfowl habitat which has provided the major stimulus for reappraisal of the need for their conservation. Habitat destruction is the most significant of all the threats to bird species, and the loss of wetland areas is commonly cited as being particularly damaging in that regard.[8]

It is undoubtedly mistaken, however, to regard this change in sentiment as a sudden and dramatic volte-face, or to attribute it exclusively to the influence of the Ramsar Convention, since there has, of course, always been some level of human appreciation of wetland values to set against the general sense of antipathy. Indeed, Conan Doyle himself was sufficiently perceptive to allow, through the musings of Dr Watson, that, when seen in the right light, wetlands might possess a distinct aesthetic appeal of their own.[9] He was also sufficiently erudite to recognize, via the activities of his fictional naturalist Stapleton (who, in a regrettable piece of casting, turns out ultimately to be the villain of the piece!) that wetlands play host to a great variety of fauna and flora, including many rare or endangered species.[10] Furthermore, the Ramsar Convention itself could scarcely have been adopted in the absence of a significant groundswell of concern over the loss of wetland ecosystems, prompted by growing recognition of their vital ecological role. What does seem to have occurred is that the principal proponents of the Convention, an *ad hoc* consortium of states and non-governmental organizations dismayed at the degradation and disappearance of wildfowl habitat, took the opportunity to harness their own particular preoccupations to the upsurge of general environmental concern that developed throughout the 1960s.[11] The Convention has subsequently been used as a vehicle for carrying the message regarding wetland values to an ever wider audience, in the hope of transforming previously negative attitudes and policies into a more environmentally sensitive programme of sustainable utilization. It will be apparent from the following discussion, however, that there is still a very long way to go.

The Ramsar Convention on Wetlands

As indicated in its preamble, the Ramsar Convention's principal objective is 'to stem the progressive encroachment on and loss of wetlands now and in the future'. It is beyond the scope of this short article to conduct an in-depth analysis of the Convention,[12] but a brief account of its principal provisions is appropriate in order to set an appraisal of its achievements into context. A key feature is the very wide definition of wetlands which the Convention, in Article 1, saw fit to adopt, namely:

> 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.

It is important to note the enormous variety of habitat types which this definition embraces, including not only those falling within traditional conceptions of wetlands (such as mangrove swamps, peat bogs, tidal flats, and water meadows), but also many other natural features (among them coastal beaches and waters, freshwater lakes and rivers, and even underground karst systems) and man-made sites (such as rice paddies, reservoirs, and flooded gravel pits). The unifying feature of this diverse array of geographical features, at least as originally perceived and reflected in the full title of the Convention, was their importance as waterfowl habitat, and it was indeed ornithological organizations that made most of the running as regards the adoption of Ramsar in the first place. Nevertheless, the intention was never to exclude or deny other wetland values, and more recently there has been a concerted attempt to de-emphasize the avian aspect to some extent, not least in order to attract the participation of developing countries, for whom the protection of waterfowl is unlikely to be considered the highest priority.

Central to the whole schema of the Convention is the creation under Article 2 of the List of Wetlands of International Importance, for which each party is obliged to designate at least one example upon signature, ratification, or accession. The boundaries of such sites are to be precisely described and delimited on a map, and may incorporate adjacent riparian and coastal zones, as well as islands and bodies of marine water deeper than 6 metres at low tide lying within the wetlands. The inclusion of a wetland in the list does not in any way prejudice the sovereign rights of the state in whose territory it is situated. States may add further sites, or extend existing ones, at any time but may also, on account of 'urgent national interests', restrict the boundaries of listed sites or delete them entirely. Wetlands are to be selected for the list on account of their international significance in terms of 'ecology, botany, zoology, limnology, or hydrology', though those of importance to waterfowl are singled out for priority attention. These rather vague principles have been the subject of clarification through the elaboration of more detailed criteria to govern the question of eligibility for listing.[13]

The substantive obligations relating to wetlands are set out in Articles 3 and 4. Under the former, the parties are to formulate and implement their planning so as to promote the conservation of listed sites and, as far as possible, the wise use of all wetlands in their territory. Once again, these vague and weakly drafted provisions have been

the subject of considerable amplification through the establishment over time of a network of principles and criteria which now provide a reasonably sophisticated policy framework for the conservation and wise use of wetlands generally.[14] In addition, Article 3(2) provides that the parties must arrange to be informed at the earliest possible time of actual or likely changes in the ecological character of listed sites and transmit this information without delay to the Ramsar Bureau. The purpose of this provision is plainly to establish some form of international monitoring of the ecological condition of internationally important sites, and the Conference of the Parties is empowered under Article 6 to consider such information and to make appropriate recommendations to the parties.

Under Article 4, the parties are to promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands, whether included in the list or not, and to provide adequately for their wardening. In particular, where they delete or restrict the boundaries of listed sites, they are as far as possible to compensate for this through the creation of additional nature reserves. Supporting obligations relate to the encouragement of research and the exchange of information regarding wetlands, the training of personnel for wetland research, management, and wardening, and the attempt to increase waterfowl populations in such habitat.

The institutional arrangements under the Convention were initially rather rudimentary, with provision for only two organs, namely the Ramsar Bureau and a Conference of the Contracting Parties. As to the former, secretariat services are provided by IUCN – The World Conservation Union, which constitutes a most interesting example of a non-governmental organization providing formal services to sovereign states for the purposes of a particular treaty regime. This arrangement was originally intended to be only provisional, but has in fact endured to the present, with the bureau's role having been significantly consolidated during the late 1980s through the establishment of proper budgetary arrangements. As to the latter, the text of the Convention itself referred only to occasional, *ad hoc* conferences on the conservation of wetlands and waterfowl, but these have been transformed by the 1987 amendments into regular triennial meetings of a Conference of the Parties, with enhanced provision for decision making and financial matters. The most recent CoP was held at San José, Costa Rica, in 1999 and the next is scheduled for Valencia, Spain, in November 2002. These organs have subsequently been supplemented by a Standing Committee and a Scientific and Technical Review Panel (STRP), to deal with administrative and technical issues respectively. In addition, *ad hoc* committees and working groups have been extensively employed to handle particular tasks. The STRP is of particular interest in that, although its composition is determined on a regional basis, its members act in an individual capacity and not as representatives of their country of origin. Each contracting party is, however, encouraged to nominate its own qualified expert to act as a focal point for liaison with the STRP, which also maintains formal links with the scientific organs of other conservation conventions and with a range of technical organizations.[15]

A notable feature has been the very substantial involvement of NGOs in all aspects of Ramsar's programme of work. Indeed, it is plausible to claim that they have been more successfully integrated into the mainstream of activities under this Convention than under any other. Four such groups—IUCN itself, Birdlife International, Wetlands International, and the World Wide Fund for Nature—have been accorded the formal status of partner organizations for the purposes of the Convention.[16] Further confirmation of the importance of their role lies in the invitation to each of them 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 the panel in undertaking its work plan.[17]

After a relatively slow start, Ramsar has been reasonably successful in attracting parties, of which there are now more than 130. The process of designating wetlands for the List of Wetlands of International Importance has also progressed quite steadily, and there are currently over 1100 sites occupying a total area in excess of 96 million hectares. They range from tiny sites of no more than 1 hectare, such as Ile Alcatraz in Guinea and Hosnie's Spring on Christmas Island, to the vast expanses of Canada's Queen Maud Gulf and the Okavango Delta in Botswana, each of which covers some 6–7 million hectares. Plainly, many states have gone far beyond the minimum obligation of designating one site, with the UK having listed more than150, though most of these are of relatively small size.

Implementation of Ramsar Obligations

In common with most international treaties, the prospects for the achievement of Ramsar's aims lie in achieving a successful blend and balance between action at the national and international levels. An interesting illustration of this approach may be found in the process of enhancing awareness of wetland values and functions. This has been confirmed as a key objective of the Ramsar system and is pursued through its Outreach Programme, embracing activity at a variety of levels.[18] This includes the development at the national level of educational programmes concerning wetlands, both through formal academic instruction and, more generally, through provision of information to the public at zoos, museums, and dedicated wetland

centres; the organization at the regional level of conferences and workshops devoted to wetland issues; and, globally, the dissemination of information by the Ramsar Bureau itself. The development of an impressive website, together with the preparation of a regular newsletter and numerous specialist publications,[19] demonstrate that the bureau has been particularly active in this regard. Nevertheless, when it comes to the implementation of substantive commitments to sustainable development, experience of conservation treaties generally suggests that the practical limitations of international institutions in terms of powers, finance, and resources, reinforced by the still strong attachment to the concept of national sovereignty, tend to result in the primary emphasis being placed upon national activities and agencies. The role of international agencies lies principally in the realms of monitoring. An effective system of reporting by states upon national measures adopted in implementation of their obligations provides the necessary link between these two aspects.

Implementation at the National Level [20]

Site Designation

An important first step in this regard is the designation of sites for the List of Wetlands of International Importance. The current *Strategic Framework and Guidelines for the Future Development of the List*, adopted at CoP 7 in 1999,[21] sets an ambitious target of 2000 sites to be designated by 2005, which represented an increase of over 100 per cent on the number of sites listed at that time. The CoP has continually encouraged parties to go beyond the minimum obligation of listing one site, and several have added repeatedly to their original list of designations, with Australia, Italy, and the UK especially prominent in that regard. Nevertheless, it was noted at CoP 7 that around 550 of all designated sites were located in just 13 countries, while 69 parties had fewer than five sites and 35 had not gone beyond the minimum of one designated wetland. Naturally, much depends on geographical circumstances—island/peninsular states located on bird migration flyways (such as Italy and the UK) are likely to include numerous important coastal wetlands, while, by contrast, Azraq Oasis in Jordan is reckoned to be that country's only wetland of significance to waterfowl—but there is plainly considerable scope for further expansion of the list. It is not simply a matter of mere numbers, however, and CoP resolutions have frequently drawn attention to the need to secure the designation of particular wetland types which are under-represented in the list and/or subject to particular risk of degradation, such as peatlands and inter-tidal wetlands.[22]

It is clear in this context that much depends upon states themselves possessing full and reliable information regarding their own wetland resources, and the parties have been urged to undertake a full inventory in accordance with agreed criteria and standards.[23] At San José, some 67 parties reported that there was in existence for their country or region a directory of potential Ramsar sites, while 46 indicated that they had undertaken a national inventory of wetlands in their territory and a further 41 that they intended to do so in the near future. However, a report by Wetlands International tended to confirm suspicions that many of these inventories covered only the more important sites or merely part of the national territory, and a relatively modest target was therefore set of 50 parties having completed a full inventory by the time of the next CoP in 2002.

National Wetland Policies and Institutions

A significant proportion of the activities undertaken within the Ramsar system has been directed towards the establishment of a clear policy framework for the conservation and wise use of wetlands, and a crucial indicator of the success achieved by the Convention concerns the extent to which such principles have been embraced at the national level. The adoption and implementation of a national wetland policy has emerged as one of the highest Ramsar priorities, and recently approved guidelines are intended to assist in that regard.[24] While in 1993 only two parties (Canada and Uganda) had formally adopted such policies, by 1999 the number had expanded to 22. A further 31 indicated that such policies were currently under development, while 24 others advised that such instruments were planned for the near future. A goal of 100 parties with national wetland policies or similar strategies integrated within broader environmental/water policies was set for CoP 8.

The review of national laws and institutions in order to ensure their compatibility with the Ramsar obligations of conservation and wise use is also an important priority.[25] At San José it was reported that some 45 parties had completed such reviews and that in 36 cases this had resulted in the adoption of appropriate revisions or amendments. It remained unclear, however, to what precise extent these reviews had been effective in promoting Ramsar objectives. Once again, a target was set of 100 parties having undertaken such reviews by CoP 8. One specific institutional development which is considered desirable is the establishment of a national wetland committee to provide a focus for domestic implementation of the Convention,[26] and 52 parties indicated at San José that they had established such a group (which in most cases incorporated some non-governmental representation), while 87 in total had introduced

at least some kind of mechanism for securing co-operation between agencies responsible for wetland-related activities. Since only 21 national committees had been in existence just four years earlier, this was counted reasonable progress. A goal was set for 2002 of establishing co-ordinating mechanisms in *all* contracting parties and formal national committees in 100 of those. A similar process of identifying progress, priorities, and targets with respect to other Ramsar objectives, including the integration of the conservation and wise-use principle into domestic planning and decision-making processes, the conduct of environmental impact assessments, and the training of appropriate personnel, was also undertaken.

The relatively 'soft' nature of most Ramsar obligations suggests that this strategy of coaxing governments towards the progressive adoption of appropriate mechanisms and policies for wetland conservation is generally sound and sensible, though there is a risk that the emphasis upon simple quantitative indicators may operate to the detriment of qualitative aspects. The record reveals that the Ramsar institutions are alive to this risk, though measurement of the *actual effectiveness* of wetland policies is, of course, a much more complex and problematic business than simply the head-counting processes referred to above.

Site Management

One obvious indicator of the extent to which contracting parties have successfully implemented their Ramsar obligations concerns the ongoing ecological condition of sites on the list, the preservation of which represents one of the principal objectives of the Ramsar system.[27] The achievement of this goal clearly depends upon effective management at site level, and the identification and implementation of conservation and management priorities for each site consequently constitutes an important aspect of the wise-use concept. At CoP 7, management plans were reported to be in place for 416 listed sites, which then represented some 44 per cent of the total. The aim was to increase this proportion by CoP 8 to 75 per cent of the sites in each contracting party, as well as to ensure the effective implementation of such plans.

Where effective management is lacking, there is an obvious risk that environmental quality will deteriorate, and it is in these circumstances that the duty to report adverse changes may come into play. At San José, some 35 parties reported such changes in well over 100 listed sites, with two indicating that *all* their designated wetlands were at risk. Of course, it is extremely difficult to judge the extent to which this represents an accurate reflection of the ecological condition of listed sites generally, since there is a significant chance that adverse changes may go unreported. Indeed, discussions at the 26th meeting of the Standing Committee in December 2001[28] emphasized the extent to which NGOs, rather than governments themselves, had been responsible for initiating the process of identifying ecological deterioration. On the one hand, this provides welcome confirmation of the vital role to be played by the non-governmental sector, but, on the other, it offers little reassurance regarding the existence of genuine political will or technical capacity on the part of governments to give effect to the environmental commitments they have undertaken.

In circumstances where wetland habitat has been seriously degraded or lost entirely, there is an obvious need to retard or reverse such processes, and consideration has accordingly been given to the question of wetland restoration.[29] At CoP 7, no fewer than 76 parties reported that some restoration or rehabilitation work had been undertaken, though it was conceded that most of this was on a relatively minor scale. A target was set of all parties having identified priority sites for restoration by 2002, with projects actively under way in 100 of those.

Reports on Implementation

The ability to monitor progress in the fashion outlined above plainly depends on the appropriate information being forthcoming from the parties through submission of their national reports upon implementation. In fact the text of Ramsar establishes no obligation in that regard, but the majority of parties did comply with a request to present national reports at the first meeting of the CoP, and this has become an established feature of the system. Response rates have fluctuated somewhat over the years, and attempts have been made to ensure that the format of reports is kept under review so as to avoid the creation of excessive burdens. At San José, satisfaction was expressed that reports had been provided by 107 of the then 113 parties,[30] which represents a reasonably impressive return by the standards of environmental treaties generally.

Implementation at the International Level

As with so many other aspects of the Convention, the arrangements established in the actual text regarding implementation of the substantive obligations it imposed were extremely sketchy, and it has subsequently proved necessary to expand upon these through the evolving practice of the parties.

The Role of the Conference of the Parties

Under Article 6(2)(a), the CoP is given a general power to discuss the implementation of the Convention and, as indicated above, this is supplemented by further, more specific powers, including the discussion of changes to the List

of Wetlands of International Importance, the consideration of information regarding ecological change at listed sites, the making of general or specific recommendations regarding the conservation, management, and wise use of wetlands and their flora and fauna, and the acquisition of data and statistics on wetland issues. At each meeting of the CoP, resolutions or recommendations are adopted relating to particular sites. At San José, for example, proposals to establish extensive waterway links between various countries in Central and Eastern Europe were noted with concern, and the parties were urged to undertake full environmental impact assessments. On the positive side, the CoP acknowledged the significant efforts made by the Spanish authorities to address the impacts of the escape of toxic mining waste upstream of the Donana site and urged the continuation of all possible measures to maintain its ecological character. Following repeated expressions of concern, the CoP acknowledged the efforts of the Greek government to improve the condition of its Ramsar sites through the adoption of management plans and legislative measures, with significant progress recorded at Lake Miki Prespa, Lake Kirkini, and the Evros Delta.[31]

The Montreux Record and Related Developments

Over the course of time, the Ramsar Conference of the Parties has considerably developed these basic arrangements, although it remains the case that the system is heavily oriented towards the facilitation of compliance, rather than the imposition of enforcement measures. One important step was the establishment at the 1987 meeting of the CoP of the so-called Montreux Record of sites which are undergoing changes in their ecological character, which broadly parallels the List of World Heritage in Danger provided for in Article 11(4) of the World Heritage Convention. Wetlands currently so recorded include Lac Tonga (Algeria), Donau-March-Auen (Austria), Srebarna (Bulgaria), Laguna del Tigre (Guatemala), Keolodeo National Park (India), Azraq Oasis (Jordan), Ichkeul (Tunisia), the Ouse Washes (UK), and the Everglades (USA). Iran and Greece each have a number of sites on the record. Parties are required to report upon measures which have been taken to safeguard such sites, with a view to their ultimate removal from the record. At San José, it was reported that several sites could be so removed, among them Ringkobing Fjord in Denmark, Tendrivska and Yagorlytska Bays in Ukraine, and three sites in Greece. The procedure for operation of the record has been modified over the years and, although the possibility of its initiation by non-state entities has been retained, the recent modifications suggest a determination on the part of states not to lose control of the process.[32] Significantly, both the decisions to incorporate sites in and remove them from the record is ultimately that of the state in whose territory they are located, and it is plain that there are substantially fewer sites on the record (59 by late 2001) than those in respect of which adverse changes have been reported. It may well be argued that the existing system is unduly deferential to considerations of national sovereignty.

It is important to understand that the Montreux Record itself is not intended primarily as a finger-pointing exercise, and that various forms of assistance may be available to states with sites in danger. Chief among these is the procedure currently known as the Ramsar Advisory Mission (originally the Monitoring Procedure), which generally involves a site visit by a multi-disciplinary team of wetland experts who produce a detailed analysis of the situation and recommendations for remedial action. Around 50 of these missions have now been organized, with recent instances involving sites in the Czech Republic, Germany, Bulgaria, Argentina, and the UK. In several cases there have been joint missions with other agencies, such as IUCN and the World Heritage Committee.

A further important development was the establishment in 1990 of a fund, now known as the Ramsar Small Grants Fund (SGF), designed to provide assistance to developing countries and economies in transition with various aspects of wetland conservation and management. It was reported at CoP 7 that the SGF had provided funding for 113 small projects in such countries to a total amount of SFr3,815,821. These have been devoted to such purposes as the study and improvement of individual listed sites, the development of management plans at both site and national level, the training and equipping of staff, the support of regional meetings and workshops, and the conduct of studies preparatory to states joining the Convention. The resources available to the fund are modest, however, and it was noted at San José that the projects funded represented fewer than half of those submitted by eligible countries. The stated aim was to increase the fund's resources to $US1 million per annum.[33] By March 2002, total contributions to the Fund from its inception amounted to almost SFr 5 million. During the year 2001 a further 14 projects were supported, to a total of SFr 556,304. The provision of funding also operates at the regional level through the Wetlands for the Future Fund, administered jointly by the Ramsar Bureau and the US authorities, which in recent years has contributed some $US250,000 per annum towards capacity building in Latin American countries.[34] In addition, it should not be overlooked that substantial funding for wetland-related projects may be available from external sources, including the GEF, and that if such applications relate to Ramsar activities or listed sites it may well boost their prospects of success.

Direct Co-operation among the Parties

These activities may also be seen within the wider context of Article 5 of the Ramsar Convention, which requires the parties to consult with each other about implementing obligations arising from the Convention, especially with regard to transboundary wetlands and shared water systems. Furthermore, they are to 'endeavour to co-ordinate and support present and future policies and regulations concerning the conservation of wetlands and their flora and fauna'. The collaborative effort envisaged by this provision may operate at a variety of levels. As regards transboundary wetlands there are already a number of co-operative arrangements in existence, the best known of which is perhaps the tripartite mechanism established by Denmark, Germany, and the Netherlands regarding the Wadden Sea.[35] Other examples relate to Lake Victoria and the Lake Chad Basin. In 1999, at CoP 7, detailed guidelines were established to regulate the question of international co-operation,[36] and the following year saw a joint mission to the Djoudj/Diawling sites in Senegal and Mauritania. As regards shared water systems, a recent report prepared by the World Conservation Monitoring Centre revealed that, of around 1000 Ramsar sites surveyed, some 28 per cent fell within international river basins, and guidelines were also established to deal with this particular aspect of Article 5.[37] Fortunately this is an area in which co-operation is now relatively well established, and it was noted that there were already in existence more than 200 such agreements at the international or regional levels. Finally, a number of co-operative arrangements have now been established for the conservation and management of wetland flora and fauna, especially migratory waterbirds, among them the North American Waterfowl Management Plan, the Western Hemisphere Shorebird Reserve Network, and the Asia-Pacific Migratory Waterbird Conservation Strategy.

In addition, there are various other means by which states may benefit from each other's experience and resources. One interesting possibility concerns the 'twinning' or 'networking' of sites in different countries, an idea which has been adopted by France and Romania regarding their Camargue and Danube Delta sites and, trilaterally, by Papua New Guinea, Australia, and Indonesia with respect to the Tonda Wildlife Management Area, Kakadu National Park, and Wasur National Park. Such arrangements are designed to encourage the sharing of information, expertise, and resources in relation to the management of similar sites or those linked by migration routes. They may accordingly provide a framework for the provision of development assistance of a targeted kind or the exchange of personnel for training purposes. It was noted at CoP 7 that this was an idea which had been under-exploited, however, with only 25 parties reporting the adoption of such arrangements. A target was set of 100 twinning arrangements in place by CoP 8. More generally, there are considerable opportunities for affluent countries to provide assistance to the less developed members of the international community, as exemplified by the joint project between Mauritania and the Netherlands regarding the sustainable utilization of the Banc d'Arguin. Finally, there is now substantial evidence of co-operative activities, particularly seminars and workshops, at the regional level, prompted in large part by the emergence of a committee structure based upon regional representation.[38]

Conclusions

The above survey demonstrates the considerable progress which has been made in the realms of wetland conservation over the thirty years since the Ramsar Convention was concluded, not least in the rehabilitation of the image of wetland features in human consciousness. Although the provisions of the Convention as originally drafted were deficient in various respects, a great deal of time and effort has been devoted to their clarification, amplification, and development, primarily through CoP resolutions, and this has undoubtedly enhanced the potential of Ramsar to advance the cause of wetland conservation.[39] The general strategy of coaxing the parties gradually towards the adoption of progressive and sustainable policies of wetland management is undoubtedly the correct one, though care must be taken to ensure that the current emphasis upon simple, quantitative indicators is not allowed to mask underlying problems of a more substantive nature. Furthermore, it must not be overlooked that Ramsar activities are occurring against a background of constantly increasing demands for economic development, and that there are still few signs that nature conservation has yet been translated to its proper place at the heart of the political decision-making process. In that context the symbolic significance of Ramsar listing may occasionally yield ostensibly more dramatic benefits in the struggle to forestall environmentally damaging development projects, such as the decision by South Africa, as reported at CoP 6, to abandon a scheme for mining at the St Lucia site or the announcement by Trinidad and Tobago at a recent Standing Committee meeting that a proposal for development at Nariva Swamp had been withdrawn following a complaint by a tourist!

The pertinent question, to conclude, is not so much whether the Ramsar Convention has made a difference, but whether that difference will prove sufficient in the long term. For, unlike the fictional exploits of celebrated detectives, the story of wetland conservation is by no means

one where eventual success can be taken for granted from the outset. Rather, as with the Grimpen Mire, it presents the risk that, unless a safe and true path is plotted through the morass, even renowned experts may ultimately flounder.

Notes and References

1. Originally serialized in the *Strand* magazine in 1901–2 and published as a book in 1902; see Sir Arthur Conan Doyle (1981 edn), *The Hound of the Baskervilles* (London/New York/Ringwood/Toronto/Auckland: Penguin Books).
2. In Patrick J. Dugan (ed.) (1993), *Wetlands in Danger* (London: Mitchell Beasley), Foreword.
3. See, e.g., the Ballad of Long Lankin, a modern rendition of which may be found on the 1975 Steeleye Span album *Commoners Crown* (Chrysalis Records): 'Beware the moss, beware the moor, beware of Long Lankin. Be sure the doors are bolted well, lest Lankin should creep in.'
4. See generally Dugan, *Wetlands in Danger*, 44–7.
5. 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat, 996 UNTS 245. For the decision in question, see Action 3.1.5., Strategic Plan 1997–2002, Brisbane Proceedings, Vol.5/12.
6. Edward Maltby (1991), 'Wetlands and their Values', in Max Finlayson and Michael Moser (eds.), *Wetlands* (Oxford/New York: Facts on File), 8.
7. *Ibid.*
8. See generally Michael J. Bowman (1999), 'International Treaties and the Global Protection of Birds: Part I', *Journal of Environmental Law* 11, 87, 88–9, and authorities there cited.
9. 'Outside the sun was sinking low and the west was blazing with scarlet and gold. Its reflection was shot back in ruddy patches by the distant pools which lay among the Great Grimpen Mire…. All was sweet and mellow and peaceful in the golden evening light.' Conan Doyle (1981), *The Hound of the Baskervilles*.
10. For discussion of these aspects of the story, see the Sherlock Holmes Exhibition Catalogue, Part V—Some Scientific Problems, <http://www.westminsteronline.org/holmes 1951/catalogue/p30.htm>.
    (i) At p. 74 Watson and Stapleton discuss the possibility that the ghostly sound they have just heard was the booming of a bittern, 'a very rare bird—practically extinct—in England now'. The bittern is indeed a bird of wetland habitat, very occasionally found in the south-west of England, the booming cry of which is audible from up to 5 km. It became extinct in England around 1850 following the drainage of large areas of its habitat, but began to reappear around the turn of the century (when the story was written); resumption of breeding was confirmed in 1911. The British population peaked around 1950 and then declined again. However, 2001 was reported to be an excellent year for bitterns in the UK, with 30 breeding males (see *Reader's Digest* (2nd edn, 1974), *Book of British Birds*, 162; J. T. R. Sharrock (1976), *Atlas of Breeding Birds in Britain and Ireland* (Calton: T. & A. D. Poyser), 56–7; *Birds*, Royal Society for the Protection of Birds (spring 2002), 61. (ii) At p. 75 Stapleton breaks off their conversation to pursue what Watson describes as 'a small fly or moth', declaring that it 'is surely Cyclopides'. This name may be unfamiliar to modern enthusiasts but was apparently in use in the nineteenth century in relation to five species, one of which was found in Britain—the Chequered Skipper (*Carterocephalus Palaemon*). It is generally classified as a butterfly, though skippers are similar in appearance to moths and sometimes classified as a third sub-order of *Lepidoptera*, rendering Watson's description understandable. The Chequered Skipper is not found on Dartmoor, however, and the fictional specimen could plausibly only have been some other species of skipper. Since Stapleton was supposed to have been an entomological expert recognized by the British Museum, his error may seem less reasonable! (iii) At p. 76 Beryl Stapleton refers to the moor being rich in orchids and requests Watson to retrieve one growing 'among the mare's tails yonder'. Again, various species of orchid are found on Dartmoor and there has been speculation as to the one to which the author intended to refer.
11. On the background to the adoption of the Convention, see Geoffrey W. T. Matthews (1993), *The Ramsar Convention on Wetlands*: *Its History and Development* (Gland: Ramsar Bureau). Particularly prominent among the states which undertook preparatory work were the Netherlands and the Soviet Union, while the principal non-governmental contributions were made by the World Conservation Union (IUCN), the International Council for Bird Protection (ICBP), and the International Waterfowl Research Bureau (IWRB). See also note 16.
12. For more comprehensive analyses, see Simon Lyster (1985), *International Wildlife Law* (Cambridge: Grotius), ch.10; Michael J. Bowman (1995), 'The Ramsar Convention Comes of Age', *Netherlands International Law Review*, 42, 1 (also published in 2001 on the website of the Ramsar Convention, <http://www.ramsar.org>).
13. For the current criteria, see Ramsar Resolution VII.11, Annex.
14. See REC. C.4.10 and RES. C.5.6.
15. See generally Resolution VII.2.
16. See Resolution VII.3. Birdlife International was formerly the International Council for Bird Preservation (ICBP); Wetlands International was recently formed through the amalgamation of the International Waterfowl and Wetlands Research Bureau (IWRB), which played a leading role in the drafting and elaboration of the Convention, the Asian Wetlands Bureau, and Wetlands for the Americas.
17. Resolution VII.2, para.8(c).
18. For the current Programme, see Resolution VII.9.
19. As to which, see the reference section in this *Yearbook*.
20. Details of many of the issues referred to may be found in the Ramsar Convention Work Plan, 2000–2002, Resolution VII.27, Annex.
21. Resolution VII.11.
22. As to which, see Recommendation 7.1 and Resolution VII.21.
23. Resolution VII.20.
24. Resolution VII.6.
25. Resolution VII.7.
26. REC. C.5.7.
27. Work Plan, General Objective 5.
28. A report of the meeting may be found on the Ramsar website, <http://www.ramsar.org>.
29. Resolution VII.17.
30. See Resolution VII.27, para.2. The remainder were urged to do so as soon as possible.
31. See generally Resolution VII.12.
32. Cf. the procedure as described in Resolutions C.5.4, Annex, and VI.1, Annex.
33. See generally Resolution VII.5.
34. See generally Recommendation 7.4.
35. See Jens A. Enemark (1993), 'Wise Use of the Wadden Sea', in T. J. Davis (ed.), *Towards the Wise Use of Wetlands* (Gland: Ramsar Convention Bureau).
36. Resolution VII.19.
37. Resolution VII.18.
38. On this point, see Resolution VII.1.
39. On this point particularly, see Bowman (1995), 'The Ramsar Convention Comes of Age'.