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Conservation Without Frontiers: The Global View

Introduction

The dawn of the new millennium provides an excellent opportunity to assess the future of conservation in the 21st century. The Fontainebleau Symposium, held in France in November 1998 to mark the 50th anniversary of IUCN–The World Conservation Union, reviewed conservation achievements over the last 50 years and assessed future challenges. This symposium noted a dichotomy. On the one hand, awareness of conservation issues has never been higher. Concepts such as biodiversity conservation and sustainable development, which were not even explicitly developed until the 1980s, are now increasingly mainstreamed into key sectors of the economy. The recent proliferation of international environmental conventions, such as the Convention on Biological Diversity, also reflects growing awareness of the significance of the environment for life on earth. However, on the other hand, many key environmental indicators give rise to major concerns. The rate at which humans are altering their environment, and the impact of this on biodiversity, is accelerating. For example, recent reports indicate that between 5% and 20% of vertebrates and trees are threatened with extinction and that extinction rates in many of the well-documented groups, such as birds and mammals, are likely to increase by an order of magnitude over the next century or so (May 1998).

This dichotomy shows the need for the establishment and implementation of clearer and more effective conservation measures. Protected areas—defined as “areas of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means” (IUCN 1994)—are playing an increasingly important role in addressing the challenges of biodiversity conservation and sustainable development around the world. These areas represent a vital investment by nations to ensure a healthy environment in the 21st century. However, the full potential of this investment will not be realised unless dynamic and forward looking strategies are developed and implemented. Also, it is becoming increasingly clear that protected areas, and the agencies that manage them, must re-examine their traditional approaches to protected area establishment and management. Important species,

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such as the ibex in Europe and the cougar in Central America, are not interested in artificial boundaries drawn on maps. Protected areas, reflecting this perspective, must broaden their outlook beyond their traditional boundaries if they are to survive in the next century.

This paper provides background to protected areas at the global level, then reviews trends in transboundary conservation around the world, introduces some successful examples of transboundary protected areas, and suggests some strategies to ensure that their full potential is realised.

The Status of the World's Protected Areas at the End of the 20th Century

IUCN's protected area category system. The current situation with regard to protected areas was reviewed at a major international symposium in Albany, Western Australia, in November 1997. This symposium reviewed current protected area status, in accordance with the IUCN protected area category system (Table 1). This system increasingly is being accepted by national governments as a clear and logical framework for guiding the establishment and management of protected areas. More and more countries have integrated the category system into their domestic legislation relating to conservation and protected areas. The category system focuses on management objectives rather than the names of different protected areas; Green and Paine (1997) note that over 1,388 different terms are used around the world to designate protected areas, and an exclusive focus on such terms within any category system is an unproductive and time-consuming exercise.

Protected area extent and distribution. The Albany Symposium noted that, as of November 1997, there were 30,350 protected areas extending over 8.83% of the world's land area, covering 13,232,275 sq km—an area as large as Antarctica. This is an impressive achievement and represents a major commitment by countries to protect their natural heritage. The number and extent of the global network of protected areas have grown steadily throughout the latter part of this century, as shown in Figure 1 for each five-year period between 1900 and 1994. Continuing growth during the most recent five-year period indicates on-going efforts by governments to establish new protected areas.

Analysis. The overall status appears encouraging, for countries around the world have taken up the challenge of developing systems of protected areas. However:

- Despite the extent of protected areas, it is increasingly obvious that, in some countries, they are not managed effectively and are often not achieving the conservation goals for which they were established. In many devel-

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oping countries, the last ten years has seen a massive increase in funding for protected areas, particularly through avenues such as the Global Environmental Facility. However, this increase in funding has not always led to a commensurate increase in the effectiveness of management, and this should sound “alarm bells” to those involved with protected areas.

- A number of terrestrial biomes are poorly protected (particularly grasslands and freshwater lakes) and the marine habitat in general is poorly represented.
- Management arrangements for protected areas are changing rapidly in many parts of the world, particularly involving agencies outside of government in their establishment and management. The long-term implications of these changing arrangements are often unclear but may be irreversible.
- Biodiversity loss is still occurring even though the total area under protected area designation is increasing, reflecting the dichotomy noted in the introduction to this paper.

Trends in Transboundary Conservation

The rapid increase in the number and area of protected areas has been mirrored by the growth in transboundary protected areas—defined in this paper as protected areas shared between two or more countries. Such areas promote and, if managed effectively, ensure biodiversity conservation at wider scales: specifically, across national boundaries. However, it is becoming clear that transboundary protected areas do much more than that. Increasingly, such areas are playing a role in building cooperation. In some cases, they are being applied as an integral element of the peaceful resolution of conflict between countries. Recent examples include the Peru–Ecuador and the Wye River (Middle East) peace agreements, which include peace parks as one component of overall peace settlement accords.

Peace parks trace their origin to 1932, when Waterton–Glacier was jointly declared the first international peace park by Canada and the USA. Since that time the concept has increasingly been applied, particularly in the last decade. The recent growth in transboundary protected areas can be clearly seen. In 1988, during the First Global Conference on Tourism—A Vital Force for Peace, 70 cases involving 68 countries were identified where established or proposed protected areas met across international boundaries. The current situation (as of 1997) is outlined in a paper by Zbicz and Green to a recent IUCN peace parks conference (Zbicz and Green 1997) and is summarised below.

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Category I	Strict Nature Reserve/Wilderness Area: protected area managed mainly for science or wilderness protection
Category Ia	Strict Nature Reserve: protected area managed mainly for science
Category Ib	Wilderness Area: protected area managed mainly for wilderness protection
Category II	National Park: protected area managed mainly for ecosystem protection and recreation
Category III	Natural Monument: protected area managed mainly for conservation of specific natural features
Category IV	Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
Category V	Protected Landscape/Seascape: protected area managed mainly for landscape/ seascape conservation and recreation
Category VI	Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

Table 1. IUCN protected area management categories. Source: IUCN 1994.

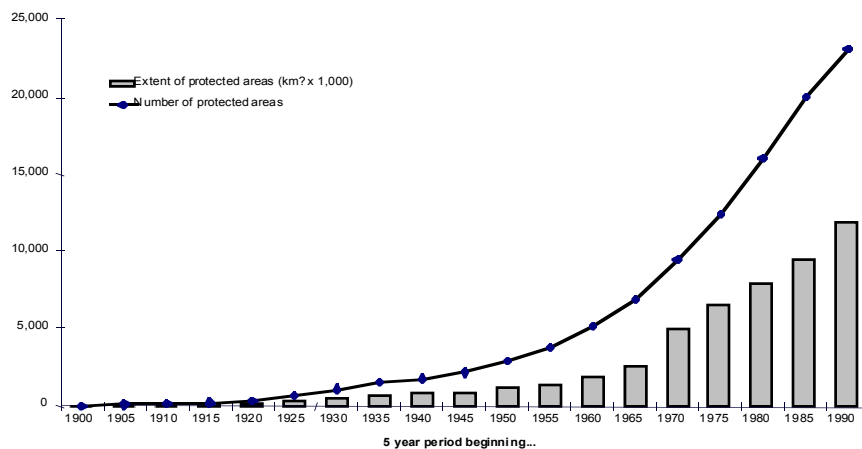


Figure 1. Cumulative growth in the number and extent of protected areas, 1900-1994.

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Status of transboundary complexes of protected areas. A total of 136 transboundary complexes of protected areas were identified by Zbicz and Green. These are distributed among 98 countries and comprise 415 individual protected areas. Zbicz and Green note that such complexes cover at least 1,127,934 sq km, representing nearly 10% of the world's protected area network. This highlights the global significance of transboundary complexes in terms of their extensiveness, quite apart from their potential importance for enhanced regional cooperation and their contribution to peace between countries at war.

There has been tremendous growth in the number of transboundary complexes since 1988, particularly over the period since 1995. Furthermore, the number of complexes straddling the boundaries of three countries has increased from two in 1988 to 23 in 1997, with a further seven potential complexes identified. While some of this growth reflects changing political situations, such as in the former Soviet Union and Central America, much of it represents increasing awareness of the value of transboundary protected areas for more effective conservation and for enhanced regional cooperation.

The regional distribution of transboundary protected areas complexes, as noted by Zbicz and Green, is summarised in Table 2 for 1988 and 1997. The increase in Central and South America partly reflects the establishment of several transboundary protected areas since the cessation of armed conflicts in the region.

Regions	Number of complexes		Number of protected areas	Number of proposed complexes		Number of complexes with three countries
	1988	1997		1988	1997	
North America	5	8	36	0	4	0
Central & South America	7	24	80	0	15	5
Europe	20	45	126	3	41	6
Africa	20	34	104	2	13	9
Asia	7	25	69	6	12	3
TOTAL	59	136	415	11	85	23

Table 2. Regional growth of transboundary complexes of protected areas, 1988-1997. Source: Zbicz and Green 1997.

Analysis. The following points can be drawn from the above:

- There has been a rapid growth in transboundary protected areas in recent times.
- Increasingly, these areas are being used to promote and increase peace and cooperation between neighbouring countries. As mentioned, the recently concluded Peru–Ecuador peace accord incorporated a major peace park component. Other examples include the La Amistad protected area between Costa Rica and Panama and the Wye River peace accords for the Middle East, both of which included a peace park component. Recent work by the South African Peace Parks Foundation (see below) has been significant in furthering the concept of transboundary protected areas as a tool towards better biodiversity conservation and regional development on the African Continent.
- To date, cooperation between transboundary complexes in different parts of the world appears to have been limited, although initiatives such as the recent IUCN peace parks conference are contributing to sharing experience and increasing awareness of the range of potential benefits of transboundary protected areas.

Case Studies of Transboundary Protected Areas from Around the World

Peace Parks Foundation (South Africa). Hanks (1997) provides background to the development of the Peace Parks Foundation. Recent political events in South Africa have helped lead to this part of the subcontinent becoming one of the most peaceful regions in Africa, with great potential for regional cooperation on transboundary protected areas. The Peace Parks Foundation was established in 1997 following a series of earlier initiatives aimed at promoting cross-border cooperation in the establishment and management of protected areas. The foundation facilitates the development of a regional international partnership to promote job creation and biodiversity conservation through the establishment of transboundary protected areas in southern Africa. Experience to date has been very successful, and clearly illustrates the role that peace parks can play in conservation and development in Africa.

Peace park in the Virunga volcano region (East Africa). Kalpers and Lanjouw (1997) note that the Virunga volcanoes are home to one of the two surviving populations of mountain gorillas (*Gorilla gorilla beringei*), as well as to a rich biological diversity typical of Afro-montane forest habitats. This conservation area, covering approximately 400 sq km, is shared by three countries:

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Rwanda, Uganda, and the Democratic Republic of Congo. The region has passed through a number of years of civil strife with associated negative impacts on the environment and protected areas. A peace park, encompassing the Parc National des Volcans in Rwanda, the Mikeno sector of the Parc National des Virunga in the Democratic Republic of Congo, and the Mgahinga Gorilla National Park in Uganda, has been proposed in this area to protect its remaining biodiversity. This project works with local authorities and through nongovernmental organisations (NGOs) such as the International Gorilla Conservation Programme. The creation of a peace park in the Virungas can potentially fulfil objectives for biodiversity conservation as well as encourage cooperation at political and diplomatic levels. Experience has indicated the important role that NGOs can play in difficult situations like this. The potential for working with other key bodies working in the region, such as the United Nations High Commission for Refugees (UNHCR), has also been noted.

Peace park initiatives in Indochina. Dillon and Wikramanayake (1997) review experience with transboundary cooperation in Indochina and note that, with much of the region's remaining natural forest habitats now restricted to the area around the international borders of Cambodia, Laos, and Vietnam, a transboundary approach to conservation is essential. All three countries have designated protected areas which can contribute significantly towards establishing a transboundary protected areas system at a wider regional level. Until recently, the subregion's long history of conflict had precluded the cooperation and dialogue necessary to establish and manage these border areas in an integrated way. The subregion's growing nature conservation activities and the active participation of the Indochina Biodiversity Forum are positive developments in recent years that have the potential to enhance biodiversity protection as well as increase stability in the subregion. The Forum, a project funded by U.N. Development Programme and implemented by World Wildlife Fund with the three above countries and Thailand, works under the theory that effective conservation of adjacent border areas requires international dialogue and cooperation.

Lessons and Future Strategies for Transboundary Protected Areas

There are a number of emerging lessons. These include:

1. Transboundary protected areas can make a major contribution to more effective biodiversity conservation and cooperation between countries. A larger contiguous protected area cooperatively managed reduces the risk of biodiversity loss and thus enhances conservation of species and ecosystems.

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2. Transboundary protected areas are unlikely to resolve conflicts by themselves or be established in active conflict areas. However, experience has shown that they can contribute to increased cooperation between countries, especially after conflict and periods of tension. The example of the Peru–Ecuador peace accord has shown that peace parks can be “built in” as one element of the peaceful settlement of disputes.
3. There are advantages of using unifying symbols or themes for protected areas shared between two or more countries. For example, the Meso-American Biological Corridor was originally developed and promoted under the theme of “Path of the Panther”; the Ho Chi Minh Trail in Indochina provides a powerful symbol for building the foundations of a peace park in this region. Hamilton (1997) notes that some landscape features, such as mountains or rivers that are shared by two or more countries, often enhance cooperation; this can be a powerful unifying force.
4. International designations, such as those coming under the World Heritage Convention and UNESCO’s Man and the Biosphere (MAB) Programme, can provide a useful stimulus to efforts to establish and manage transboundary protected areas. A number of transboundary protected areas are either World Heritage sites or biosphere reserves.
5. There is a need to include the full range of protected area categories within transboundary protected area systems. The majority of transboundary protected areas around the world are within the more strictly protected IUCN categories (mainly categories I and II). IUCN suggests that any protected area system should include the full range of categories and also that it should include the full range of terrestrial and marine ecosystem types in each country. This principle is particularly relevant for the establishment and management of transboundary protected areas.
6. Increased support, at all levels, is essential if transboundary protected areas are to have a viable future. In many parts of the world, protected areas are seen as marginal to other areas of policy, such as forestry and agriculture. If protected areas are to have a strong and viable future, this situation must change. Protected areas need to be accepted as credible sectors in their own right and mainstreamed into other policy areas. A key issue is to appropriately identify and communicate the many values and benefits that protected areas offer society, both material and nonmaterial. Often such values are neither identified nor articulated in government policy forums, even though they can be significant. Clearer articulation of the benefits of transboundary protected areas can show how they can relate to and support different sectors of government policy within the respective countries. Transboundary protected areas must broaden the base of support at local

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community levels. Global experience shows that only planning which fully involves all relevant actors is likely to be successful in the long term, though it may often be more expensive and complex initially. The more effective involvement of local communities is one of the major challenges facing transboundary protected areas, and the key issue is to ensure this is done most effectively. Transboundary protected areas must have strong support from local staff. Without it, transboundary protected areas are unlikely to succeed. Staff need to be closely involved in the design and implementation of transboundary protected area programmes at all stages.

7. The full range of models for establishing and managing transboundary protected areas should be used. Traditional approaches to managing protected areas are changing in many parts of the world. Transboundary protected areas are generally managed by different government agencies in ministries or departments of environment or forestry, although other agencies are increasingly becoming involved. Many agencies managing transboundary protected areas are relatively new, with great pressures on scarce resources. An important issue in many countries is the need to improve coordination between different agencies involved in transboundary protected area management.
8. There is a need to improve management capacity for transboundary protected areas. The challenges facing the transboundary protected area manager in the 21st century are increasing in scale and complexity. The range of skills thus needs to be broadened to include, for example: (a) management skills, such as in strategic planning and financial management; (b) cultural and social expertise; for example, relating to partnerships and stewardship, dispute resolution, and networking with a complex array of stakeholders; (c) technical skills in relation to project design, report writing, and information technology; and (d) policy expertise, such as understanding the broader legal framework and other sectoral policies within which protected area activities need to be implemented. In many cases this will require a change on the part of protected area agencies, both in terms of recruitment and in training and career development strategies.
9. Experience from successful transboundary protected areas has also shown that it is critical to build activities on a foundation of practical, “nuts and bolts” cooperation at the field level, as in fire and invasive species management.
10. Cooperation with other agencies with similar objectives may be a useful way for encouraging transboundary protected area efforts. For peace parks such as the Parc National des Virunga, there are considerable benefits in

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working with agencies such as the UNHCR, whose activities (e.g., siting of refugee camps) can have significant environmental impact.

Conclusion

Transboundary protected areas are a vital element of attempts by countries to conserve their biodiversity, to support sustainable development, and to enhance regional cooperation. The challenges facing transboundary protected areas are significant, and the nature of the work of agencies is changing rapidly and significantly. If transboundary protected areas are to reach their potential, appropriate strategies must be developed and implemented, including:

- Using the full range of protected area categories;
- Broadening planning for transboundary protected areas so that they form an integral aspect of broader regional planning as part of an interlinked network, rather than as a series of individual sites;
- Ensuring that the full range of benefits from transboundary protected areas are identified, communicated, and factored into decision-making;
- Ensuring that local staff and communities are closely and effectively involved in the establishment and management of transboundary protected areas;
- Utilising the full range of approaches to transboundary protected area management, tailored to the needs and circumstances in each country; and
- Building capacity for the management of transboundary protected areas at all levels.

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