

Turing Ideas on their Head¹

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The New Paradigm for Protected Areas

Protected area planners and managers, resource managers and other conservation experts may be familiar with the ideas that this chapter brings together, but they may not have considered their combined significance. The changes that have occurred in our thinking and practice towards protected areas over the past 40 or so years amount to a revolution. They can be traced in the decisions of five World Parks Congresses. Together they have produced a new paradigm for protected areas in the twenty-first century. Factors that helped bring about this new paradigm will have an even greater influence on protected areas thinking and practice in future.

The Classic View of Protected Areas

The classic model of protected areas is of government-owned, government-run areas set aside for the protection of nature. This model derives from the latter part of the nineteenth century, mainly in the then 'new' nations of North America, Australia, New Zealand and South Africa.

Other countries followed this model (Everhart 1972). There were regional differences however; for example, in Africa, the emphasis was on creating large game parks, while in Europe, landscape protection was more common. But until mid-1960s, the climate favoured a top-down and rather exclusive view of protected areas, where governments knew best and public opinion was to be shaped rather than heeded. The opinions and rights of indigenous peoples in particular were of little concern to any government before 1970, which fitted well with autocratic styles of colonial administration (especially in Africa). This model was reflected for example in the 1940 Washington Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere and the 1968 Africa Convention on Nature and Natural Resources. These international instruments encouraged the creation of protected area) would:; excluded local people, though tourists (and their activities such as sport fishing) would be welcome. Scientists working on protected areas tended to have narrow specialisations, and they made little effort to build cross-disciplinary bridges to related fields. Many protected areas came into being at a simpler time in a less complex world. While the summary given in Exhibit 1 may generalise the detailed ways in which protected area management varied in different countries, it does capture the values held by protected area managers and political leaders at the time.

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Exhibit 1 *A Classic Model of Protected Areas*
(Adapted From Phillips 2002)

Objectives

- 'set aside' for conservation, in the sense that the land (or water) is seen as taken out of productive use
- established mainly for scenic protection and spectacular wildlife, with a major emphasis on how things look rather than how natural systems function
- managed mainly for visitors and tourists, whose interests normally prevail over those of local people
- placing a high value on wilderness in areas believed to be free of human influence
- protection of existing natural and landscape assets – not about the restoration of lost values

Governance

- run by central government, or at very least set up at the instigation only of central government

Local people

- planned and managed against people (except for visitors), especially to exclude local people
- managed with little regard to the local community, who are hardly consulted on and might not even be informed of management intentions

Wider context

- developed separately – planned one by one, in an ad hoc manner
- managed as 'islands' – managed without regard to the areas around them

Perceptions

- viewed primarily as a national asset, with national considerations prevailing over local considerations
- viewed exclusively as a national entity, with little or no regard to international obligations

Management techniques

- management of protected areas is essentially a technocratic exercise, with little regard to political considerations
- managed reactively within a short time, with little regard to the need to learn from experience

Finance

- paid by the taxpayer

Management skills

- managed by natural scientists or natural resource experts
- expert-led

Charting Changes in Thinking

Progress in protected areas since about 1960 can be analysed by examining the recommendations of the World Parks Congresses held every 10 years, at the First (Seattle 1962), Second (Yellowstone/Grand Teton 1972), Third (Bali 1982), and Fourth (Caracas 1992) Congresses. The limited number of recommendations adopted (or planned) at each event forced a prioritisation. A detailed study of the recommendations tends to bear out the following conclusions:

- The First World Conference on National Parks adopted a number of brief recommendations, but not all of them focused on protected area policy. Several recommendations addressed support for the newly-founded WWF, site-specific issues (such as Galapagos) and species conservation.
- The Second World Conference of National Parks was more focussed on what were then seen as the global priorities for protected areas. Its recommendations failed to address the relationship between protected areas and questions of development in general and between protected areas and the areas surrounding them in particular. There was also little interest shown in local communities or Indigenous peoples except as a threat to protected areas. No direct attention was given to biodiversity and genetic resources conservation. From today's perspective, the 1972 conference in Yellowstone appears to represent an old and narrow view of protected areas. However, it produces a much more comprehensive agenda than that adopted at Seattle, and it may be said to capture the priorities of the classic paradigm in Exhibit 1.
- The Third World Parks Congress in Bali, Indonesia, addressed a wholly new agenda, including the role of protected areas in stable development, environmental planning and protected areas, protected areas and traditional societies, conservation of wild genetic resources and development assistance. It was considered from a more constructive viewpoint, with as much stress on alternative sources of income for local people as on combating illegal activities. In place of education in protected areas came the much bigger challenge of building public support for protected areas. By making the link between protected areas and development, and acknowledging the key role of local and indigenous groups, Bali represented a real watershed.
- New themes emerged at the Fourth World Congress on National Parks and Protected Areas, Caracas, Venezuela in 1992. This congress took place a few months before the United Nations Conference on Environment and Development (UNCED) and was influenced by issues that were to come to the fore in Rio, like global change, sustainable development and global efforts for biodiversity conservation. Thus Caracas was concerned with people and protected areas, financial support for protected areas, sustainable use of natural resources, partnerships for protected areas and ecological restoration. It should be noted, however, that new ideas, such as encouraging supra-national regional strategies for protected areas and promoting corridors between protected areas, were included in the Caracas Action Plan but not in the recommendations (McNeely 1993; Holdgate and Phillips, 1999).

Since the Caracas congress, protected areas have continued to evolve rapidly at the international level. The first Latin American Congress on National Parks and Other Protected Areas (Sama Marta, Colombia, 1997) gave priority to the spiritual dimension of protected areas, the emerging impact of the globalised free market economy on protected areas and the changing role of protected area agencies from 'managers' to 'regulators' (Castaño Uribe 1997). IUCN convened a 'mid-term' meeting five years after the Caracas Congress in Albany, Australia. The theme 'From Islands to Networks' emphasised the importance of bioregional planning in the context of protected area management (IUCN 1998b).

The draft list of proposed topics for recommendations at the Fifth World Parks Congress in Durban, South Africa, introduces new themes, such as the spiritual values of protected areas, cities and protected areas, and the governance of protected areas.

Table 1 synthesises this analysis by showing how various themes have emerged over the course of five Congresses and others have declined in importance. The grouping of recommendations is subjective. The titles are far less important than the contents of the decisions and over time the range of issues covered under the topic headings has increased greatly. Nonetheless, this analysis illustrates what has been seen as important at different Congresses over the past 40 years. It demonstrates how ideas about protected areas have changed radically in quite a short time.

Table 1 *Changing priorities at World Parks Congresses*

Topic	Number of Recommendations Adopted at (or Proposed for)				
	1° Congress 1962	2° Congress 1972	3° Congress 1982	4° Congress 1992	5° Congress 2003
Ecosystem coverage (including marine)	1	5	3	3	4
Standards, definitions, Information	3	2	1	2	2
Threats, pressures, global change	1	3	2	3	2
Technical assistance, Finance	2	1		1	2
Interpretation, education	1	2	1		
Species, genetic resources, biodiversity	1		1	2	
Research, science	2	1			
Law, planning and Management		1	1	1	
Training, capacity building		1	1	2	3
Conventions, trans-boundary etc.		4	3	1	3
Building support, Partnerships			1	2	3
Development, bio-regional scale etc.			3	1	1
People (including indigenous peoples)			1	1	4
Ecological restoration				1	
Governance					2
Spiritual values					1
Urban links					1

Modern Paradigm for Protected Areas

The new paradigm for protected areas contrasts in almost every respect with that which prevailed 30, or even 40 years ago. The essential elements of the paradigm at the outset of the twenty-first century are listed in Exhibit 2; a contrast of the new paradigm with the classic model is given in Table 2.

Exhibit 2	<i>Elements of the Modern Paradigm for Protected Areas (adapted from Phillips 2002)</i>
Objectives	<ul style="list-style-type: none"> • includes social, economic, conservation, recreation, restoration and rehabilitation objectives • often designated for scientific, economic and cultural reasons with a more sophisticated rationale for establishing protected areas • managed to ensure that local people benefit from, and are not adversely affected by tourism • recognises that so-called wilderness areas are often culturally important places
Governance	run by many partners, thus different tiers of government, local communities, indigenous groups, the private sector, NGOs and others are engaged in protected area management
Local people	<ul style="list-style-type: none"> • run with, for and in some cases by local people who are no longer passive recipients of protected area policy but viewed as active partners, even initiators and leaders • managed to help meet the needs of local people, who are increasingly seen as essential beneficiaries of protected area policy, economically and culturally
Wider context	<ul style="list-style-type: none"> • planned as part of national, regional and international systems, with protected areas developed as part of a family of sites. The CBD requires the development of national protected area systems (Article 8a)
<ul style="list-style-type: none"> • developed as 'networks' i.e. with strictly protected areas which are buffered and linked by green corridors integrated regionally 	Perceptions
<ul style="list-style-type: none"> • viewed as a community asset, balancing the idea of a national heritage • management guided by national as well as international responsibilities, leading to transboundary protected areas and international protected area systems 	Management techniques
<ul style="list-style-type: none"> • managed adaptively in a long-term perspective, with management being a learning process • selection, planning and management are viewed as essentially a political exercise, requiring sensitivity, consultation and astute judgement 	Finance
paid through a variety of means to supplement or replace government subsidies	Management skills
<ul style="list-style-type: none"> • managed by people with a range of skills, specially people-related skills • values and draws on the knowledge of indigenous peoples and local communities 	

None of the ideas in the new paradigm is particularly novel. They are becoming the standard ways of working in the protected area business in many countries, although progress with some issues is more rapid than with others. However, its contrast with the classic model is striking. In almost every respect, ideas that prevailed only 30 years ago have been turned on their heads. The result is a revolution in the approach to protected areas.

Table 2 *Contrasting Paradigms (a summary of Exhibits a and 2)*

Topic	Classic Model	New Paradigm
Objectives	<ul style="list-style-type: none"> • set aside for conservation • established mainly for spectacular wildlife and scenic protection • managed mainly for visitors and tourists • valued as wilderness • about protection 	<ul style="list-style-type: none"> run with social and economic objectives often set up for scientific, economic and cultural reasons managed so that tourism helps local people valued for the cultural importance of so-called 'wilderness' about restoration and rehabilitation
Governance	run by central government	Run by many partners
Local people	<ul style="list-style-type: none"> • planned and managed against people • managed without regard to local opinions 	<ul style="list-style-type: none"> • run with, for and in some cases by local people • managed to meet the needs of local people
Wider Context	<ul style="list-style-type: none"> • developed separately • managed as 'islands' 	<ul style="list-style-type: none"> • planned as part of national, regional and international systems • developed as 'networks', including strictly protected areas, buffered and linked by green corridors
Perceptions	<ul style="list-style-type: none"> • viewed primarily as a national asset • viewed only as a national concern 	<ul style="list-style-type: none"> • viewed also as a community asset • viewed also as an international concern
Management Techniques	<ul style="list-style-type: none"> • managed reactively within short time • Managed in a technocratic way 	<ul style="list-style-type: none"> • managed adaptively in long-term perspective • managed with political considerations
Finance	<ul style="list-style-type: none"> • paid by taxpayers 	<ul style="list-style-type: none"> • paid by many sources
Management skills	<ul style="list-style-type: none"> • managed by scientists and natural resource experts • expert-led 	<ul style="list-style-type: none"> • managed by multi-skilled individuals • drawing on local knowledge

Forces Behind the Changes

It is possible to identify the factors that have brought about a very different way of looking at conservation issues and the management of natural resources and protected areas. These relate to agreements at the international level, developments in scientific understanding, emerging cultural and social awareness, the acknowledgment of human rights, international and domestic political developments, general developments in management practice, technological advances, and economic forces.

At the international level, significant influences include:

- the 1972 United Nations Conference on the Human Environment held in Stockholm, which signalled the end of a colonial period of conservation;
- the development around the same time of the biosphere reserve concept as part of the Man and Biosphere Programme of UNESCO, with its idea of a core area for strict protection, surrounded by buffer and transitional zones and its integration of conservation and development;
- the publication of the World Conservation Strategy which expressed new thinking on conservation and its relationship to development (IUCN 1980); and
- the adoption of Agenda 21 and the Convention on Biological Diversity (CBD) at the UNCED held at Rio de Janeiro in 1992.

These events reflected the changed thinking about the relationship of people and nature over the same period (see Table 3). Note that while the 1980+ column in Table 5 corresponds very well with the message in the World Conservation Strategy of 1980, the 1990+ column seems to go beyond UNCED and Agenda 21. The ideas in the extreme right column are beginning to influence thinking profoundly, especially the idea of linking human rights and environmental protection. What seems to be emerging is the idea of an environmental human right as against or, as well as, a theory of rights of nature.

Scientific understanding has taught us, for example, that many protected areas are too small to function effectively and need to be joined with others or set in an ecologically friendly landscape for the species within them to survive. It has also shown us that the human impacts on what were previously thought of as pristine environments have often been significant, from the Amazon forest to the Australian outback, undermining the power of the wilderness argument. It has revealed many new frontiers for conservation, for example the marine environment, (and especially the high seas), and many new challenges, like climate change. And it has shown that techniques exist for ecological restoration.

Greater cultural and social awareness encourages greater respect for local communities—especially for traditional and Indigenous peoples—living in and near protected areas, and helps foster appreciation of any sustainable use of resources that they practice. It has also helped people to question the legitimacy of the wilderness concept, since many so-called wilderness areas are in fact the homelands of Indigenous peoples. The views and experience of women are now acknowledged to be of importance, as discussed in Chapter 2 (Alden Wily), and there is concern that ethnic minorities should not be marginalised. More generally, a greater understanding of the values held by different sectors of society has made it incumbent on protected area managers to listen to the views of Indigenous and local people and respond to their concerns. The current pre-occupation with stakeholder analysis is an expression of this.

Table 3 *Summary of people-nature problematics in international Conservation 1960 – 1999 (Jeanrenaud 2002)*

Variable	1960+	1980+	1990+
Perception of nature	wilderness	ecosystem; biodiversity; ecoregions	culture in nature and nature in culture
Environmental values	theocentric and anthropocentric	anthropocentric and cosmocentric	anthropocentric and cosmocentric
Diagnosis of Environmental problems	overpopulation; exceeding the land's carrying capacity	poverty; overpopulation	power relations; north-south inequalities; what counts as a problem and to whom?
Representations of local people	people are the threat	people cannot be ignored; people are a resource	align with rural people
Solutions and technologies	exclusionary protected areas	buffer zones, integrated conservation and development programs; sustainable use; community-based conservation	Alternative protected areas; participatory natural resource management; human rights
Power relations	alliances with elites	technocratic alliances	alliances with grass-roots
Key influences	Colonial conservation; elitist interests	sustainable development debate; growing concern for livelihoods	democracy/ human rights movement; participatory development; post-modern influence on natural and social sciences

Linked to this has been the emergence in the recent decades of an international doctrine and law on human rights, especially the rights of Indigenous peoples, particularly in relation to the environment. This is evident in International Labour Organisation Convention No. 169: Concerning Indigenous and Tribal Peoples in Independent Countries (1989), the Draft United Nations Declaration on the Rights of Indigenous Peoples, and the Draft American Declaration on the Rights of Indigenous Peoples. In Latin America, the Arctic, New Zealand and Australia governments have been obliged to make *big* changes in the way they approach protected areas in indigenous territories. Governments have transferred some responsibility of management, and even for initiating protected areas, to indigenous and local communities. Respect for 'indigenous peoples and local communities' rights and awareness of the values of traditional knowledge have been reinforced through the implementation of international

conservation agreements. Art. 80) of the Convention on Biological Diversity (1992) specifically calls on countries to work with Indigenous and local communities. Although conventions dating back to the early 1970s, such as the Ramsar Convention (Convention on Wetlands of International Importance especially as Waterfowl Habitat [1971]) and the World Heritage Convention (Convention Concerning the Protection of the World Cultural and Natural Heritage [1972]) do not include such measure, their implementation has been increasingly guided by the need to be sensitive to cultural diversity and the values of indigenous groups. This is reflected too in the implementation of UNESCO's Man and Biosphere Programme.

It is impossible to generalise about political developments, but several broad trends seem to be underway in many parts of the world. Greater democratisation and the devolution of power from the centre to regional and local government (including indigenous peoples) mean that central governments are not always primarily responsible for creating or managing protected areas. Provincial, municipal and local governments are now more involved. The enhanced role of civil society favours NGOs playing an increasingly important role in protected areas. There is also a greater use of private market mechanisms to effect change, deliver services and indeed help manage protected areas. Private individuals are now creating their own reserves. At the other end of the scale, governments increasingly recognise that protected areas should be managed in part according to international obligations.

General developments in management practice have affected protected area management in a number of ways. In the later part of the twentieth century it became clear that making connections across professional and institutional boundaries is one of the biggest challenges facing governments and managers of all kinds. For protected areas, this means making connections with adjacent and neighbouring areas and adopting a multi-disciplinary approach. Another broad trend in natural resource management is away from detailed master plans and towards the adoption of a strategy of clearly-defined objectives coupled with adaptive forms of response. This too finds an echo in protected area practice.

Technological advances also have their impact on protected area management. It is not just that IT or GIS make possible the handling and sharing of vast amounts of data and information, but that they create a different set of understandings and expectations among all concerned. In particular, they encourage a belief that the boundaries to what are possible are not so much technical as human and political.

Finally, there are economic forces, ranging from global to local, putting pressure on protected area planners and managers. As these pressures have grown, the management of protected areas has been 'invaded' by economic theory. Managers have had to master the language of values and benefits that protected areas represent and to adopt more business-like approaches to these places, including the requirement to prepare business plans. Increasingly, this has included the idea of generating income to supplement government subventions.

Some Critical Reflections on the Modern Paradigm

The current approach to protected areas is widely shared. It accords well with prevailing political, economic and scientific conditions. However, it is not without major problems, and the reality is that it is not always easy to operate the modern paradigm. Here are some of the criticisms that are sometimes heard:

- Devolution of political power from the centre has led to the break-up of some protected area agencies with unfortunate results. An extreme case is Indonesia where the parks system

has to a large extent been undermined by the breakdown of central control and widespread corruption. Several vital sites (such as Gunung Leuser in Sumatra) face destruction from a range of threats. Jakarta has neither the will nor the ability to do much to defend the area in a political climate that encourages ruthless extraction of natural resources.

- Stakeholder participation and community involvement may be essential, but they can make great demands on resources (staff time and money) from over-stretched protected area-agencies. They call for fine political judgements about who are stakeholders and how conflicting interests can be determined and reconciled. Sometimes it is too difficult and managers complain of 'analysis paralysis' and 'stakeholder fatigue'.
- One should not be naive about the willingness or ability of local communities to support conservation and sustainable use. Not every community has responsible traditions in the use of natural resources. Hunting with high velocity rifles can upset the balance between hunters and wildlife; and a community with a fast growing population has a different impact on natural resources than one with a stable population. How to build partnerships with local people in the context of such challenges poses major dilemmas for many protected area managers.
- In promoting people-based conservation, there is danger of diminishing the achievements of government-managed, strictly protected areas. In fact, many government owned and managed parks are intended to be strictly protected against all kinds of exploitative use. This will remain the cornerstone of systems of protected area in many countries. The new paradigm is not intended to undermine the value of such places but to show how their management has changed (or should change) radically, and to stress that the contributions other kinds of protected areas make may be equally important. Since all governments try to meet the demands of different groups, they may find it hard to support protected areas at the expense of other interests.

In this context, the relevance of the new paradigm is that it offers more scope for negotiation.

- There is a danger in making protected area managers' jobs impossible. The demands of stakeholder analysis are only one part of the protected area manager's ever expanding set of responsibilities. The manager is expected to master (or employ experts in) many new and complex areas of expertise (including business skills and fund raising, economics, conflict resolution and public relations) in addition to natural resources and visitor management. The manager is now being urged to think beyond the protected area boundaries, to engage in bioregional planning initiatives (see below), and even to address wider social problems, such as those faced by ethnic minorities in neighbouring cities.

There are more such questions, and no easy answers to them. The modern paradigm may indeed represent the outcome of a revolution in protected areas management, but it greatly complicates the task of management. Nonetheless, it is fast becoming a reality.

The Modern Paradigm in Action

Examples of the application of the new approach to protected area planning and management are fully explored in later chapters. Brief reference is made here to three kinds of on-the-ground action: Community Conserved Areas, bioregional planning/ ecological networks, and Protected Landscapes and Seascapes (IUCN protected area management category V). They suggest that the cutting edge of protected area work has moved into very different fields.

Community Conserved Areas

Community Conserved Areas (CCAs) may be thought of as natural ecosystems containing significant biodiversity, which is conserved by communities who depend on these resources, culturally and/or for their livelihoods. While conservation efforts may include outside support, the three key features are that the local communities:

- are concerned about the ecosystem through their relation to it;
- take effective action to maintain or enhance biodiversity; and
- are major players in decision-making and implementing decisions (G. Borrini-Feyerabend, pers. com.).

CCAs are discussed in many chapters of this book. It is becoming clear that while such areas provide a potentially new tool in the conservation armoury, they have often gone unrecognised. There are several reasons for this. Many government conservation agencies are busy running their own protected areas and too hard pressed financially to reach out to support community initiatives. Some conservation experts do not understand that local people can live alongside nature and conserve it. In some countries, legal and policy frameworks do not recognise the role of local people in conservation. There are many countries where Indigenous peoples and rural communities have yet to secure their full legal rights to the territories and resources that they have occupied or used in the past.

Yet the importance of CCAs is considerable, for they are far more common than was until recently appreciated. In South Asia, it is estimated that there are many thousands such areas under community protection (Kothari, Pathak and Vania 2000). They exist too as sacred groves in Africa, as 'tapu' areas in the South Pacific, and as 'hemas' reserves in pastoral communities of west Asia. They are common from the Arctic to the tropical rain forests, where Indigenous peoples have long lived close to nature. 'When the efforts of local people to conserve their own environments go unrecognised and unsupported, it means that a major contribution to -- conservation is being neglected. 'Whilst not all community-based resource use is sustainable and not every local group will manage nature in a responsible way, there is enough evidence, from many parts of the world, to show that CCAs need to be better recognised within systems of protected areas.

There are important lessons learnt about why such approaches work better in some countries than in others. ~ devolved to local people, where human rights are respected, and where decision-making is transparent and equitable, CCAs contribute to conserving biodiversity and landscapes, demonstrate the integration of conservation and development, contribute to national protected area systems, and be part of ecological networks and bioregional planning.

Bioregional Planning /Ecological Networks

It is estimated that 60,000 protected areas around the world satisfy the IUCN definition of the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP /WCMC) at Cambridge, UK. Fewer than a quarter of these are large enough (normally greater than 10 km²) to be included in the United Nations List of Protected Areas, which was published most recently in 1998 (IUCN, 1998).

IUCN has recently published a review of ecological networks (Bennett and Wit 2001). It draws in part on an unpublished work of Kenton Miller and Larry Hamilton (1997). The reports show that about 150 initiatives in various parts of the world aim to promote large-scale planning ,for conservation and sustainable resource use, which involve developing networks of protected areas linked with other land

and water zones, all managed in an integrated way. Such initiatives go by different names, including ecological networks, bioregional planning, landscape-scale and ecoregion-based planning. Ecological networks vary greatly *in* size, from a county to a continental scale. Several involve two or more countries. Roughly half are currently government-led; the rest are led by non-government organisations. Many form part of international programs (such as Biosphere Reserves), while others are stand-alone schemes. While the initiatives differ widely in many respects, they have certain features in common:

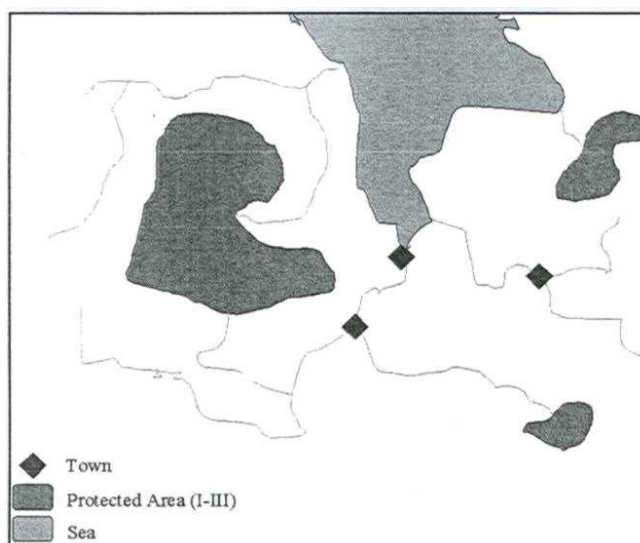
- they focus on conserving biodiversity at the ecosystem, landscape or regional scale, rather than in single protected areas;
- they emphasise the idea of ecological coherence through encouraging connectivity;
- they involve buffering of highly protected areas with eco-friendly land management areas;
- they include programs for the restoration of eroded or destroyed ecosystems; and
- they seek to integrate economic land use and biodiversity conservation.

Exhibit 6 summarises key pages of several such schemes. Further examples are discussed in Chapters 6, 14, 15 and 16.

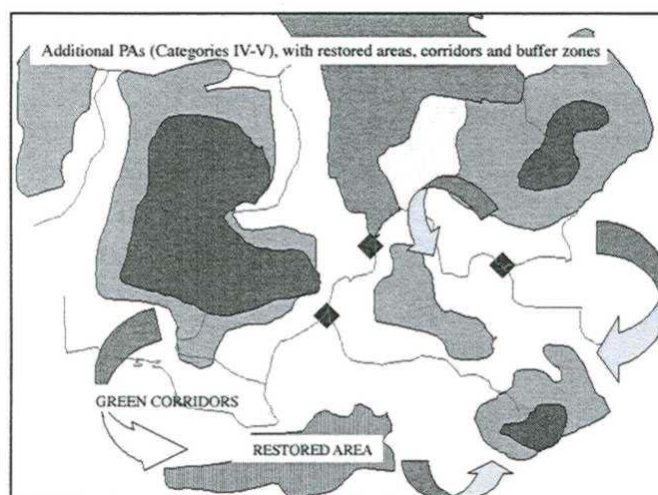
Exhibit 6 summarises key pages of several such schemes. Further examples are discussed in Chapters 6, 14, 15 and 16. Such schemes have important implications for the established protected areas within them. National parks and other protected areas become the "anchors" of the network, the core areas around which buffers are created and between which corridors are established. They set the standards towards which restoration schemes can aspire. Such projects link protected areas to the lands and waters around, and to the regional economy. They also provide a framework within which privately-owned, publicly-owned, or communally-owned land can be managed through voluntary agreements. While early indications of the benefits of bioregional planning are encouraging, a major challenge over the next few years will be to assess the true value of these initiatives for biodiversity conservation and sustainable development. A particular task will be to establish how effective such large-scale initiatives are in linking with local people on the ground.

The institutional and capacity building implications of bioregional or ecological network planning are indeed formidable (Rivera et al. 2003). Three kinds of challenges arise:

- to build the capacity to plan and manage at a scale unfamiliar to most protected area managers;
- to foster stakeholder participation for a wide range of partners, which can be very challenging given the complex social and economic implications of working in a large geographic scale; and
- to establish cooperative institutions to ensure the delivery of results, where previously agencies were typically narrowly focused (Miller 1996).



1a *Protected areas as islands*



1b *Protected areas as part of networks*

Figure 1 *Bioregional planning*

The maps illustrate how protected areas can be linked to make a network of interconnected green places, including those that people live and work within.

The involvement of protected area managers in such initiatives is essential. Nothing illustrates more the need for protected area management to be outward looking and connecting with the world around than the development of such initiatives.

IUCN Protected Area Management Category V: Protected Landscapes and Seascapes

While the IUCN insists that all protected area categories are important, traditionally the focus of most conservation attention has been on categories I to IV the so-called strictly protected areas. These are areas in which the human presence, though it often exists, is kept at a minimal level. The need for these areas is greater than ever if much biodiversity is to be protected. However, there is now a growing interest in Category V and VI protected areas, which are lived-in, multiple-use landscapes and seascapes. In 1997, WCMC recorded 3,178 Category V protected areas, covering 676,892 km² (These data relate to the sites included in the 1997 UN List of Protected Areas, and not on the entire list of sites held by UNEP / WCMC on its database). This amounted to 23.8% of all recorded protected areas and 11% of the physical area covered (IUCN, 1998). To promote interest in such protected areas, the IUCN has recently published *Guidelines on the Management of Category V Protected Areas: Protected Landscapes / Seascapes* (Phillips 2002).

Though Category V is unique among the categories in its emphasis on interaction between people and nature, it shares with Category VI the idea of multiple sustainable use. However, there is an important difference. While Category V protected areas are lived-in, productive landscapes that have been extensively modified by people over time, the definition of Category VI speaks of an 'area of predominantly unmodified natural systems' which is to be managed so that at least two-thirds of it remains that way.

Table 4 *Some ecological network/bioregional planning initiatives (Bennett and Wit, 2001)*

Title of Initiative	Areas Involved	Leading Organisation	Main objectives	Main Components
Meso-american Biological Corridor	Eight Meso-american countries (multi-national)	Inter-governmental Leadership	Halt biodiversity loss, ecosystem fragmentation; integrate with regional development, including Integrated Coastal Zone Management and MPAs	<ul style="list-style-type: none"> • Core areas • Corridors • Buffer zones (multiple use areas)
Yellowstone-Yukon	Canadian and US Rockies (bi-national)	NGO alliance	Ensure that wilderness, wildlife, native plants and natural processes continue to support natural and human communities	<ul style="list-style-type: none"> • Wildlife cores • Connecting movement corridors • Transition areas
Netherlands Ecological Network	Territory of the Netherlands (national)	Dutch Ministry of Agriculture, Nature Management and Fisheries	Create coherent network for species and habitats; simulate self-sustaining natural processes; develop/ restore connectivity	<ul style="list-style-type: none"> • Core areas • Ecological corridors • Buffer zones • Nature development areas
Cheshire Econet	Cheshire Country, UK (local)	Cheshire Country Council/EU LIFE programme	Manage landscape for people and wildlife and improve the relationships between surviving wildlife habitats	<ul style="list-style-type: none"> • Core areas • Restoring and reconnecting landscape features



Figure 2 *Philippines rice terraces: a World Heritage Cultural Landscape and an IUCN Category V protected area – a lived-in, working landscape*

Photo **Adrian Phillips**

Category V protected areas are of increasing interest because of the important conceptual and operational advances in conservation and protected area policy that they represent. For example, conservation biology has shown the need to work at the ecosystem scale and across a wider landscape, through bit regional planning in which lived-in landscapes, such as those of Category V, must form a part. Such areas reflect a new understanding of the link between nature and culture, where healthy landscapes are shaped by human culture as well as by the forces of nature, and where rich biological diversity often coincides with cultural diversity (Brown and Mitchell 2000). There is much experience in Category V protected areas in achieving conservation ends though the involvement of those people who are closest to the resources.

Conclusion

It is not the purpose of this chapter to diminish in any way the value of strictly protected areas, nor to disparage the achievements of this kind of conservation. Well-managed protected areas of all categories are needed more than ever. Indeed, in many places biodiversity conservation will not succeed without a still greater effort to protect large parts of the planet against exploitation of any kind. But it is essential to adopt new ways of managing these, and strictly government owned and managed protected areas alone are not enough. What is called for in the twenty first century, and what is now emerging in the new paradigm, is a broader protected areas.

It is broader in three ways

- by including a wider range of actors who initiate and manage protected areas (CCAs are an example);
- by working at a far broader scale than hitherto, as exemplified by ecological networks and bioregional planning;
- by broadening our understanding of the range of possibilities encompassed in the definition of a protected area and the IUCN protected area categories, so that we can embrace parts of lived-in, productive landscape, for example as Category V protected areas.

There have been huge conceptual advances in our thinking on protected areas over the past 40 years. The challenge as always is to apply that knowledge. Putting the new paradigm into action calls for new, more people-focused protected area legislation such as that discussed in various chapters of this book, though existing laws can often be stretched to accommodate many of the new approaches. The new paradigm also requires the re-education of politicians and the public so that they understand the new model of protected areas, and the re-orientation of development assistance policies so as to integrate protected areas into poverty reduction projects and strategies.

Bringing about the revolution in protected area governance has not been easy. There are many people who do not wish to hear that the values and policies associated with protected areas are now very different from those that prevailed in the past. Indeed there may be some in the profession who still yearn for the old certainties. It is now important that we develop support among people and their political leaders for protected areas. This in turn depends on being able to show the benefits that they can bring to society. The theme of the Fifth World Parks Congress in Durban, September 2003 coincides with this: *Benefits beyond Boundaries*.

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Web Site

IUCN/WCPA web site: <http://wcpa.iucn.org/>

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