TURNING IDEAS ON THEIR HEAD[1] – The New Paradigm for Protected Areas

Adrian Phillips[2]

Introduction

The ideas that this paper brings together will be familiar to resource managers, protected area planners and managers and other conservation experts, but they may not have considered their collective significance. So its purpose is not so much to break new ground, as to suggest that the changes that have occurred in our thinking and practice towards protected areas over the past 40 or so years amount to a revolution. The collective significance of these changes, which can be traced in the decisions of four World Parks Congresses, has largely gone unnoticed, but it has produced a new paradigm for protected areas in the twenty-first century. Powerful forces have helped to bring about this new paradigm – and they will have an even greater influence on protected areas thinking and practice in future.

Protected areas

A starting point is a definition of 'protected area'. IUCN adopted this in 1994:

> "Area 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).

The Convention on Biological Diversity uses a different definition:

> "Geographically defined area which is designated or regulated and managed to achieve specific conservation objectives" (Article 2).

In practice these definitions are only marginally different. Either would suffice for the purposes of the argument in this paper. Note that both of them consider protected areas:

- to be area-based concepts that might be found anywhere;
- to require specific measures (dedication, designation, regulation) for the purposes of biodiversity conservation (i.e. protection and maintenance);
- to require management, delivered through legal or other effective means; and
- by implication, to require that some kind of management authority is in place to secure conservation.

There are some 60,000 protected areas around the world, that is places that satisfy the IUCN definition and are held in the date base kept by the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP/WCMC) at Cambridge, UK. However, less than a quarter of these are large enough (normally

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[2] Formerly Chair of the IUCN World Commission on Protected Areas (1994-2000), now Senior

>10km^2) to be included in the United Nations List of Protected Areas, which is published every few years: the last edition was the 1997 list (IUCN, 1998).

Protected areas are managed for many purposes and nationally have been called by many different names. To bring some order into this complicated situation, IUCN has developed a system of protected area categories, based on the primary management objectives (IUCN, 1994). All categories are intended to fit within IUCN's overall definition of a protected area (see above). These categories are summarised below (Box 1):

Box 1: The Six IUCN Management Categories of Protected Areas (IUCN, 1994)

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

A Classic View of Protected Areas

It is traditional (and correct) to accord to the Unites States the honour of pioneering protected areas in their classic form, as government-owned, government-run areas set aside for protection and enjoyment. This model was, and remains a simple but powerful expression of a peoples' concern to protect their heritage for all time. If this paper sets out to show why it is now often regarded as incomplete, and in some situations potentially counterproductive, this is not to diminish its achievements in many countries nor to suggest that it has no role to play in future.

Notwithstanding the leadership role of the US, in fact the idea of formally designated protected areas – national parks in particular – took root in a number of countries around the same time. The origins of Yosemite National Park go back to 1864, and Yellowstone National Park, of course, came into being in 1872. But the Portuguese colonial government of Brazil initiated what is now Tijuca National Park in 1861. The British Colony of New South Wales (Australia) reserved a number of areas west of Sydney for protection and tourism in the 1860s and 1870s, some of which later became part of the Blue Mountains National Park. In 1879, Royal National Park was created in the wilds south of Sydney as a natural recreation area for its burgeoning population. In 1885, Canada protected hot springs in the Bow Valley of the Rocky Mountains; part of this became the Banff National Park. Several forest reserves were set up in South Africa in the last years of the nineteenth century. In 1887 in New Zealand, the Maori Chief Te Heuheu offered the Crown 2,400ha of sacred mountain summits, which later became the Tongariro National Park Act. The provincial or state

tier of governments also started to create protected areas: the Province of Ontario in Canada created Queen Victoria Niagara Falls Park in 1885, and Algonquin National Park in 1893 (later Algonquin Provincial Park) (Holdgate, 1999).

While the modern protected areas movement had nineteenth century origins mainly in the then "new" nations of North America, Australia, New Zealand and South Africa, other countries were quick to follow. During the twentieth century, the idea spread around the world, though the driving force has been different in different regions. For example, in Africa, the emphasis was on creating large game parks; in Europe, a focus on landscape protection was more common.

The inspiration of the US was much in evidence – creating a family of "Yellowstone's children" (Everhart, 1972). Indeed active marketing of the US experience has a long history. Thus, the 1940 Washington Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere called on contracting parties to create protected areas, of which the principal model was national parks, sensu USA. The first two world parks congresses were held in the US (Seattle, 1962, Yellowstone and Grand Teton, 1972). From 1965, the US (and Canada) hosted an annual very influential short course on parks for young conservation leaders around the world. Also the international office of the US National Park Service helped many countries to establish national parks.

As protected areas were set up in more and more countries, so it becomes more difficult to generalise about why they were established and how they were managed. Nonetheless, for many years the classic model dominated thinking, and was at the centre of much national legislation to set up protected areas. This view was reinforced by IUCN's advisory, promotional and training work in this field, which treated national parks as primus inter pares among the different kind of protected areas[3]. These ideas were delivered on the ground in many parts of the developing world through support given to national park projects by FAO and (after its establishment in 1972) UNEP, as well by some other donors. Also many countries set up specialised agencies (national parks services) to manage these.

At least until around the mid-1960s, the climate in which protected areas were set up around the world favoured a top-down and rather exclusive view of protected areas. Setting up large game parks without too much concern for the impact on local people fitted well with the autocratic style of colonial administration (especially in Africa); and it was equally at home in the early days of post-colonial government which followed many of the same styles of administration. Thus, modelled in part on the Western Hemisphere Convention, the 1968 Africa Convention on Nature and Natural Resources encouraged the creation of protected areas from which local people would be excluded, though tourists (and their activities such as sport fishing) would be welcome (see Box 2). Certainly the opinions and rights of indigenous peoples were of

[3] Thus, the first title of what is now the "UN List of Protected Areas" was "UN List of National Parks and Equivalent Reserves". The first title of the IUCN Commission on the topic was the International Commission on National Parks (later Commission on National Parks and Protected Areas, now World Commission on Protected Areas). The title of the 1962 and 1972 congresses were "International Conference on National Parks", and the 1982 event was called "Third World Congress on National Parks"; that in 1992 was entitled "Fourth World Congresses on National Parks and Protected Areas",

little concern to any government before about 1970; they were not organised as a political force as they are now in many countries. Even in more developed countries, the prevailing view until the 1960s or so was that governments knew best, and public opinion was something for officials to help shape, not to be influenced by. Moreover, the scientific foundation to protected areas was limited: the basis upon which areas were selected, and their boundaries drawn, often involved arbitrary judgement based on superficial knowledge. More generally, the idea of inter- or multi-disciplinary working was in its infancy. The great majority of people working in their area or profession made little effort to build bridges to others employed in related topics: protected areas were no exception. In short, many protected areas came into being at a simpler time in a less complex world.

Box 2: Extracts from the 1968 Africa Convention on Nature and Natural Resources

‘"Conservation area" means any protected natural resource area, whether it be a strict natural reserve a national park or a special reserve; …

"Strict nature reserve" means an area: …under State control … throughout which any form of hunting or fishing … are strictly forbidden,…where it shall be forbidden to reside, enter, traverse or camp…

"National park" means an area:… under State control … exclusively set aside for the propagation, protection, conservation and management of vegetation and wild animals … in which the killing, hunting and capture of animals and the destruction or collection of plants are prohibited …… and to enable the public to visit these parks; … sport fishing may be practised with the authorisation and under the control of the competent authority;

"Special reserve" means other protected areas such as: "game reserve" … within which the hunting, killing or capture of fauna shall be prohibited … where settlement and other human activities shall be controlled or prohibited; "partial reserve" or "sanctuary" … an area set aside to protect characteristic wildlife … ; "soil", "water" or "forest" reserve shall denote areas set aside to protect such resources.’

It is this context that accounts for the main features of the classic model, or paradigm[4], of protected areas as it was before – say - 1970, and which are summarised in Box 3.

Box 3: 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, that is

[4] “Paradigm” is used here to mean a prevailing pattern of concepts and attitudes which together

areas believed to be free of human influence · About 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 the impact of people (except for visitors), and especially to exclude local people. · Managed with little regard to the local community, who are rarely consulted on management intentions and might not even be informed of them
Wider context: · Developed separately - that is planned one by one, in an ad hoc manner · Managed as 'islands'- that is managed without regard to the areas around
Perceptions: · Viewed primarily as a national asset, with national considerations prevailing over local ones · Viewed exclusively as a national concern, with little or no regard to international obligations
Management technique: · Management of protected areas treated as an essentially technocratic exercise, with little regard to political considerations · Managed reactively within a short timescale, with little regard to the need to learn from experience
Finance: · Paid for by the taxpayer
Management skills: · Managed by natural scientists or natural resource experts

Of course, Box 2 is a bit of a caricature, and certainly a rather crude generalisation that overlooks many of the detailed ways in which protected area management in one country differed from that in another. Nonetheless, it captures the prevailing values held by protected areas professionals and political leaders at the time.

Charting the changes in thinking

To help chart the progress in thinking about protected areas since about 1960, an analysis has been undertaken of the topics chosen for recommendations at four international protected areas events occurring at 10 year intervals. These are the First (Seattle, 1962), Second (Yellowstone/Grand Teton, 1972), Third (Bali, 1982) and Fourth (Caracas, 1992) World Parks Congresses. Also included in the analysis are two other international protected area events held since 1992, and the themes selected for the fifth congress at Durban in 2003. Each congress was (or will be) a global gathering of protected areas and other conservation experts, addressing the issues that they regard as the most pressing. The strictly limited number of recommendations adopted at each event forced a prioritisation that can be quite revealing Of course this is a crude form of analysis on its own, but detailed study of the texts of the recommendations tends to bear out the following conclusions.

The First World Conference on National Parks adopted a number of resolutions but not all of them focused on protected area policy. Several addressed institutional questions (e.g. support for the newly-founded WWF), site-specific issues (e.g. Galapagos) and species conservation issues. Box 4 includes only those recommendations that relate to protected area policy in general.

Box 4: Topics of Relevant Recommendations of the First World Conference on National Parks, Seattle, USA, 1962[5] (Adams, ed. 1962)

5: Park interpretation services
6: Research into undisturbed biotopes
7: Management to be based on scientific research
8, 9 and 10: Protected areas definitions and standards
11: Exclusion of damaging development
13,14: Inclusion of support for protected areas in aid programmes
15: Marine protected areas
22: Species protection by protected areas

The recommendations adopted by the Second World Conference on National Parks were much more clearly focussed on what were then seen as the global priorities for protected areas. They are set out in Box 5:

Box 5: Topics of Recommendations of the Second World Conference on National Parks, Yellowstone and Grand Teton, USA, 1972 (National Parks Centennial Commission, 1973).

1. Conservation of Representative Ecosystems
2. Conservation of Tropical Forest Ecosystems
3. Conservation of North and Sub-Polar Ecosystems
4. Marine National Parks and Reserves
5. Establishment of Antarctica as a World Park under UN Administration
6. International Parks
7. Regional Systems of National Parks and Other Protected Areas
8. Conservation of the World Heritage
9. Wetlands Convention

[5] The author added the titles as the originals were only numbered.

10. Standards and Nomenclature for Protected Areas
11. Integrity of National Parks and Equivalent Reserves
12. Usage of National Parks
13. Detrimental Effects of Vehicles, Boats and Aircraft in National Parks and other Protected Areas
14. Research on National Park Values
15. Planning of National Parks and Other Protected Areas
16. Exchange of Information
17. Technical and Financial Assistance for National Parks
18. Training
19. Interpretation Services for National Parks
20. Education in National Parks and other Protected Areas

The most remarkable thing about this list, fully borne out by a detailed analysis of the texts of the recommendations, is the failure to address the connections between protected areas and questions of development in general, and between protected areas and the areas around them in particular. There is also liitle interest shown in local communities or indigenous peoples – except as a threat to protected areas. Also no direct attention is given to biodiversity and genetic resources conservation. From today's perspective, these products of the 1972 conference in Yellowstone appear to represent an inward-looking and narrow view of protected areas. They produce a much more comprehensive agenda than that adopted at Seattle, and may be said to capture the priorities of advocates of the classic paradigm in Box 3.

Towards a new paradigm

It is instructive to compare Box 5 with the recommendation topics adopted by the Third World Parks Congress in Bali, Indonesia ten years later (see Box 6). While some themes are the same or similar, there are a bunch of recommendations that address a wholly new agenda – see those emphasised in italics. Even familiar topics, like poaching, are considered from a much 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 has come the much bigger challenge of building public support for protected areas. In this way, by making the link between protected areas and development questions, and by acknowledging the key role of local and indigenous groups, Bali represented a real watershed.

Box 6: Topics of Recommendations of the Third World Congress on National Parks, Bali, Indonesia, 1982 (McNeely and Miller (eds), 1984)

1. Information on Protected Areas
2. Global System of Representative Terrestrial Protected Areas
3. Marine and Coastal Protected Areas
4. Antarctica
5. *The role of Protected Areas in Sustainable Development*
6. Threats to Protected Areas
7. Combating Poaching
8. *Environmental Planning and Protected Areas*
9. *Protected Areas and Traditional Societies*
10. *Conservation of Wild Genetic Resources*
11. *Development Assistance and Protected Areas*
12. Management of Protected Areas

13. Protected Areas Personnel: Training and Communication
14. Development of Public Support for Protected Areas
15. Voluntary Assistance for Protected areas
16. World Heritage Convention
17. Biosphere Reserves
18. International Agreements and Protected Areas

Analysis of the recommendations adopted at the Fourth World Congress on National Parks and Protected Areas, Caracas, Venezuela, shows a number of further new themes emerging. This congress took place just before the United Nations Conference on Environment and Development (UNCED) and was clearly influenced by issues that were to come to the fore in Rio a few months later, like global change and biodiversity conservation: see italicised recommendations in Box 7 below. It should be noted, however, that other new ideas, such as encouraging (supra-national) regional strategies for protected areas and promoting the idea of corridors between protected areas, were included in the Caracas Action Plan and not in the recommendations adopted there (see McNeely, 1993; and Holdgate and Phillips, 1999).

Box 7: Topics of Recommendations of the Fourth World Congress on National Parks, Caracas, Venezuela, 1992 (McNeely (ed.), 1993)

1. Strengthening the Constituency for Protected Areas
2. *Global Change and Protected Areas*
3. *Global Efforts to Conserve Biodiversity*
4. Legal Regimes for Protected Areas
5. External Forces threatening Sustainability
6. *People and Protected Areas*
7. *Financial Support for Protected Areas*
8. *Protected Areas and the Sustainable Use of Natural Resources*
9. Tourism and Protected Areas
10. *Partnerships for Protected Areas*
11. Marine Protected Areas
12. Information, research and monitoring
13. *Ecological restoration*
14. Water and Protected Areas
15. Development Planning and Natural Resource Use
16. Expanding the Global Network of Protected Areas
17. Protected area categories, management effectiveness and threats
18. Building protected areas institutions
19. Developing protected areas professionalism
20. Biosphere Reserves

In the years since Caracas, ideas about protected areas have continued to evolve rapidly at the international level. Thus, the first Latin American Congress on National Parks and Other Protected Areas (Sta. Marta, Colombia, 1997), gave priority to: (a) the spiritual dimension of protected areas; (b) the emerging impacts on protected areas of an increasingly globalised free market economy; and (c) the changing role of protected area agencies, from “managers” to “regulators” (Castaño Uribe, 1997) . In the same year, IUCN convened a ‘mid-term’ meeting five years after Caracas Congress in Albany, Australia. The theme was “From Islands to Networks”, and the

meeting emphasised the importance of bioregional planning as a context for protected areas management (IUCN, 1998b).

It is of course too soon to say what will be decided at the forthcoming Fifth World Parks Congress to be held in Durban, South Africa, in September 2003, but the pre-congress selection of seven workshop streams and three cross-cutting themes indicate the likely areas of attention, see Box 8[6]. It is important to note that these omit a number of overarching issues, like global change, that will be addressed in plenary sessions and may well be the subject of recommendations. On the other hand they do suggest the current topics that preoccupy protected areas planners and managers.

Box 8: Workshop Topics for the Vth World Parks Congress, 2003

Themes are of two kinds:

There will be seven "vertical" streams:

1. Linkages in the Landscape/Seascape
2. Building Support for Protected Areas
3. New Ways of Working Together – Governance of Protected Areas
4. Developing the Capacity to Manage – Capacity Building
5. Maintaining Protected Areas for Now and Future – Management Effectiveness
6. Building a Secure Financial Future – Finance and Resources
7. Building Comprehensive Protected Area Systems – Gaps in the Systems

and three cross-cutting themes:

8. Marine Protected Areas
9. World Heritage
10. Communities and Equity

Box 8 attempts to synthesise this analysis by showing how various themes have emerged over the course of these five congresses and others have declined in importance. The grouping of recommendations is subjective, as is the assignment of recommendations. Moreover, the titles are far less important than the contents of the decisions. Furthermore, it is noticeable that over time the range of issues covered under the topic headings has increased greatly, so titles alone can be misleading. Nonetheless, this analysis serves to illustrate what has been seen as important at different ten-year stages over the past 40 years, and to that extent the broad trends are clear.

Box 8: Changing Priorities for World Parks Congresses

Topic	**Recommendations adopted at:**				
	1st Congress 1962	**2nd. Congress 1972**	**3rd Congress 1982**	**4th Congress 1992**	**5th Congress 2003**
Ecosystem coverage (inc. marine)	15	1,2,3,4,5	2,3,4	11,16	7_,8
Standards, definitions, information	8,9,10	10, 16	1	12,17_	5_
Threats, pressures, global change	11	11,12,13	6,7	2, 5,9_,17_	see above
Technical assistance, finance	13,14	17		7	6
Interpretation, education	5	19,20	14		
Species, gen. resources, biodiversity	22		10	3,8	7_
Research, science	6,7	14			
Law, planning and management		15	12	4	3_,5_
Training, capacity building		18	13	18,19	4

[6] See the IUCN-WCPA website at www.iucn.org/wcpa

International conventions etc.		6,7,8,9	16,17,18	20	9
Building support, partnerships			15	1,9_,10,14	2
Development, regional planning etc.			5, 8,11	15	1
People (inc. indigenous peoples)			9	6	10
Ecological restoration				13	
Governance					3_

_ Recommendations 9 and 17 of 4th Congress cover two topics
_ Themes 3, 5 and 7 of 5th Congress cover two topics

This analysis of the topics chosen for recommendations at the ten-year interval World Parks Congresses between 1962 and 2003, albeit a subjective one, reveals how far ideas about protected areas changed in quite a short time. A number of critical external events were responsible for moving the agenda of the World Parks Congresses over this period. At the international level, the most important were:

- The 1972 United Nations Conference on the Human Environment held in Stockholm (which may be seen as signalling the end of a colonial period of conservation);
- The development around the same time of the biosphere reserve concept by UNESCO, with its idea of a core area for strict protection, surrounded by buffer and transitional zones and its integration of conversation and development;
- The publication of the World Conservation Strategy in 1980, 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 1992 UNCED, held in Rio de Janeiro.

These same events influenced (and reflected) thinking about people and nature in general over the same period – see Box 9.

Box 9: Summary of People-Nature Problematics in International Conservation, (1960-1999) Jeanrenaud (2002)

Variable	***1960+***	***1980+***[1]	***1990+***[1]
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 can't be ignored; people are a resource	Align with rural people
Solutions and technologies	Exclusionary protected areas	Buffer zones, integrated conservation and development programmes; sustainable sue; 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

([1] author's note: Whereas the 1980+ column corresponds very well with the message in the World Conservation Strategy of 1980, the 1990+ column seems to go beyond UNCED and Agenda 21. Perhaps this most recent group of ideas challenges governments too much to find expression in an international agreement. Nonetheless, the ideas in the right hand column are beginning to influence thinking profoundly, especially the idea of linking Human Rights and environmental protection. Indeed 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).

The modern paradigm for protected areas

The result is the emergence of a new paradigm for protected areas, which contrasts in almost every respect with that which prevailed 40 or even 30 years ago. The essential elements of the paradigm at the outset of the twenty-first century are listed in Box 10. The contrasts with the classic model (Box 3) are summarised in Box 11.

Box 10: The main elements of the modern paradigm for protected areas

Objectives:

- Run also with social and economic objectives, as well as conservation and recreation ones
- Often set up for scientific, economic and cultural reasons - the rationale for establishing protected areas therefore becoming much more sophisticated
- Managed to help meet the needs of local people, who are increasingly seen as essential beneficiaries of protected area policy, economically and culturally
- Recognises that so-called wilderness areas are often culturally important places
- About restoration and rehabilitation as well as protection, so that lost or eroded values can be recovered

Governance:

- Run by many partners, thus different tiers of government, local communities, indigenous groups, the private sector, NGOs and others are all engaged in protected areas management
- Managed so that the needs of local people are considered alongside those of visitors

Local people:

- Run with, for, and in some cases by local people – that is local people are no longer seen as passive recipients of protected areas policy but as active partners, even

initiators and leaders in some cases · 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: · Planned as part of national, regional and international systems, with protected areas developed as part of a family of sites. The CBD makes the development of national protected area systems a requirement (Article 8a) · Developed as 'networks', that is with strictly protected areas, which are buffered and linked by green corridors, and integrated into land around that is managed sustainably by communities
Perceptions: · Viewed as a community asset, balancing the idea of a national heritage · Management guided by international responsibilities and duties as well as national and local concerns. Result: transboundary protected areas and international protected area systems
Management technique: · Managed adaptively in a long term perspective, with management being learning process · Selection, Planning and Management viewed as essentially a political exercise, requiring sensitivity, consultations and astute judgement
Finance: · Paid for through a variety of means to supplement – or replace - government subsidy
Management skills: · Managed by people with a range of skills, especially people-related skills

Box 11: Contrasting paradigms (a summary of Boxes 3 and 10) (adapted from Phillips, 2002)

Topic	***As it was: protected areas were …***	***As it is becoming: protected areas are …***
Objectives	· Set aside for conservation · Established mainly for spectacular wildlife and scenic protection	· Run also with social and economic objectives · Often set up for scientific, economic and cultural reasons

	· Managed mainly for visitors and tourists · Valued as wilderness · About protection	· Managed with local people more in mind · Valued for the cultural importance of so-called "wilderness" · Also about restoration and rehabilitation
Governance	Run by central government	Run by many partners
Local people	· Planned and managed against people · Managed without regard to local opinions	· Run with, for, and in some cases by local people · Managed to meet the needs of local people
Wider context	· Developed separately · Managed as 'islands'	· Planned as part of national, regional and international systems · Developed as 'networks' (strictly protected areas, buffered and linked by green corridors)
Perceptions	· Viewed primarily as a national asset · Viewed only as a national concern	· Viewed also as a community asset · Viewed also as an international concern
Management techniques	· Managed reactively within short timescale · Managed in a technocratic way	· Managed adaptively in long term perspective · Managed with political considerations
Finance	Paid for by taxpayer	Paid for from many sources
Management skills	Managed by scientists and natural resource experts	Managed by multi-skilled individuals

None of the ideas in Box 10 and summarised in the right hand column of Box 11 is particularly novel. They are becoming the standard ways of working among professionals in the protected areas business in many countries, although progress with some issues is more rapid than with others. The contrast with the classic model is very striking. In almost every respect, established ideas that prevailed only 30 years ago have been turned on their heads: the result is a revolution in our approach to protected areas.

Putting this new paradigm into action calls for: new, more people-focused protected areas legislation, such as that adopted in Peru or Brazil (though existing laws can often be stretched to accommodate many of the new approaches); the 're-engineering' of protected areas people; 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 such a revolution has not been easy. There are many people who – for good reasons or bad – 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. And indeed there may be some in the profession who still yearn for the old certainties.

The forces behind the changes

The forces that have driven this change are increasingly powerful. It is not the aim of this paper to analyse them in detail: the implications are very broad, since they touch on many aspects of the way that society operates and nature functions. But it is possible to identify the main factors that have brought about a very different way of looking at conservation issues, and the management of natural resources in general and that of protected areas in particular. These relate to scientific understanding, cultural and social awareness, the acknowledgement of human rights, political developments, general developments in management practice, technological advances and economic forces.

Scientific understanding has taught us, for example, that many protected areas are too small to function effectively and need to be joined up with others, or set in an ecologically friendly landscape, if the species within them are 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, thereby to some extent undermining the power of the wilderness argument. It has revealed many new frontiers for conservation, especially in the marine environment, including the high seas; and many new challenges, like climate change. It has also shown that techniques exist for ecological restoration.

Cultural and social awareness encourage greater respect for local communities, and traditional and indigenous peoples, an awareness of the true character of their relationship with nature, and an appreciation of the sustainable practices than many of them have followed. This too has led people to question the value 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 acknowledged now to be of special importance, and there is concern that ethnic minorities should not be marginalised: this too affects views of the relationship between protected areas and the people living in or near them. More generally, 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 local people, and to respond to their concerns. The current pre-occupation with stakeholder analysis is an expression of this.

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 the ILO Convention 169, the draft Declaration on the Rights of Indigenous Peoples and the Inter-America Declaration on the Rights of Indigenous Peoples. In response, governments have been obliged to make big changes in how they approach protected areas in indigenous territories, in Latin America, the Arctic, New Zealand and Australia for example, transferring responsibility for management, and even for initiating protected areas, to local communities.

It is impossible to generalise about political developments, but several broad trends do seem to be underway in many part of the world, in Africa, Latin America, Eastern Europe, India, China and so on. For example, greater democratisation and the devolution of power from the centre to regional and local tiers of government (including indigenous peoples) means that central government is no longer the only

agency that creates or manages protected areas. The enhanced role of civil society favours NGOs playing an increasingly important role in protected areas. Greater use of market mechanisms to effect change, deliver services or manage processes impact in many ways on protected areas and how they are managed: for example, private individuals are creating their own reserves, commercial ventures are more involved in delivering aspects of protected area management, and protected area managers have to approach their job in a more business-like way. At the other end of the scale, governments increasingly recognise that protected areas are in part an international responsibility. This is sometimes very precise, for example where a site is designated under the World Heritage or Ramsar Conventions (or regional agreements like those in Europe), and sometimes it is a more general sense of responsibility encouraged particularly by the requirements of the CBD to conserve biodiversity in situ.

General developments in management practice have impacted on protected area management in a number of ways. For example, in the latter part of the twentieth century it has become 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 to the areas around and adopting a multi-disciplinary approach. Another broad trend in management in general 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 areas practice.

Technological advances also have their impact on protected areas 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 often technical as more human and political.

Finally there are economic forces, ranging from the global to local, but all putting pressure on protected areas planners and managers. As these pressures have grown, so 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 the care of these places, including the requirement to develop business plans. Increasingly, this has included the idea of generating income to supplement government subventions.

Some critical reflections on the modern paradigm

As noted at the outset of this paper, the current approach to protected areas is now widely shared. It accords well with prevailing political, economic and scientific conditions. But it is not without major problems and the reality is that it 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 in a country of globally important biodiversity 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 wholesale 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 the ruthless extraction of natural resources.

- *Stakeholder participation and community involvement may be essential but they can make great demands of resources (staff, time and money) from over-stretched protected areas agencies*. Also they call for fine political judgements about who are stakeholders and how conflicting interests can be determined and reconciled Sometimes it is all too difficult and managers complain of 'analysis paralysis' and 'stakeholder fatigue'.
- *We should not be naïve about the willingness or ability of all local communities to support conservation and sustainable use*. Not every community has responsible traditions in its use of natural resources; modern hunting technology (e.g. high velocity rifles) can change 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 our enthusiasm for people-based conservation, we are in danger of diminishing the achievements of government-managed strictly protected areas.* That is not the intention: in fact, government owned and managed parks that are strictly protected against all kinds of exploitative use will remain the cornerstone of many countries' systems of protected areas. 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 contribution that other kinds of protected areas can make is equally important. It also a reminder that governments try to meet the demands of many different groups and therefore find it hard to support protected areas at the expense of other interests.
- *We are in danger of making the manager's job undoable.* The demands of stakeholder analysis are only one part of the protected area manager's ever expanding set of responsibilities. He or she is expected to master (or at least employ experts in) many new and complex areas of expertise (business skills and fund raising, economics, conflict resolution, public relations and so on) on top of natural resource and visitor management. Now the manager is being urged to think beyond the protected area boundaries, to engage in bioregional planning initiatives (see below), and even to address wider social problems faced by ethnic minorities in nearby cities.

There are many more such difficult questions, and no easy answers to them. The modern paradigm may indeed represent the outcome of a revolution in protected areas management has been brought up-to-date, but it greatly complicates the task of management. Nonetheless, as the last part of this paper shows, it is fast becoming a reality.

The modern paradigm in action

Three examples of the application of the new approach to protected areas planning and management are briefly explored, with references to on-the-ground action: Community Conserved Areas; bioregional planning/ecological networks: and Protected Landscapes and Seascapes (IUCN protected area management category V). They all suggest that the cutting edge of protected area work has moved into very different fields from those that received most attention 30 years ago.

Community Conserved Areas[7]

Community Conserved Areas (CCAs) may be thought of as natural ecosystems containing significant biodiversity value which are conserved by communities that depend on these resources, culturally and/or for their livelihoods. While conservation efforts may or may not include outside support, the three key features are that the local communities:

- Are concerned about the ecosystem though their relation to it;
- Take effective action to maintain or enhance biodiversity; and
- Are major players (usually the major players) in decision making and implementing decisions.

It is becoming clear that while such areas provide a potentially important new tool in the conservation armoury, they have often gone unrecognised There are several reasons for this. Many government conservation agencies are just too busy running their own protected areas, and hard pressed financially, to reach out to support community initiatives. Some conservation experts do not believe 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. Finally 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 previously appreciated. In South Asia, for example, it is estimated that there are many such areas under community protection (Kothari, Pathak and Vania, 2000). They exist too in the form of sacred groves in Africa, as 'tapu' areas in the South Pacific or as 'hemas' reserves in pastoral communities of west Asia. They are common also in many parts of the world, ranging from the Arctic to tropical rain forests, where indigenous peoples have long lived close to nature. So where the efforts of local people to conserve their own environments go un-recognised and unsupported, it means that a major contribution to conservation (and a ready-made tool for building local support for conservation) is being neglected.

Nonetheless, there are encouraging signs that some governments are coming to see the value of treating local and indigenous communities as partners: see Box 11.

Box 11: Some examples of the successful partnerships between government and CCAs (sources: several personal communications as shown)

Country	Initiative	Brief description	Significance
Australia	Indigenous protected areas (IPAs)	IPAs allow indigenous landowners to declare that they will manage their lands mainly for protection of natural and associated cultural resources.	IPAs account for nearly 17% of total protected areas estate in Australia *Source: Steve Szabo*
Mexico (State of Oaxaca)	Community Protected Natural Areas	Laws recognise community land and resources, community land use planning and local decision-making	Local communities in Oaxaca (most biodiverse rich region of Mexico) protect nearly 200,000 ha.

[7] This section draws in particular from material provided by Grazia Borrini-Feyerabend, Ashish

			Source: Gonzalo Oviedo
Ecuador (Cofan de Bermejo)	Negotiations over rights of indigenous groups	Transfer of responsibility of ecological reserve from government to local federation of indigenous groups	50,000 ha of land will be managed by local people but with outside support *Source: Gonzalo Oviedo*
Colombia (Indiwasi National Park)	Negotiations over rights of indigenous groups	Transfer of responsibility of national park from government to indigenous groups (first of 47 in Colombia)	70,000 ha of land will be managed by local people but with outside support *Source: Gonzalo Oviedo*
Samoa (Safata and Aleipata MPAs)	Establishment of Marine Protected Areas for sustainable fisheries	Local communities have taken the initiative to define and establish MPAs (including "no-take zones") in the waters and coastal areas of the District Communities of Safata and Aleipata	30,000 ha + of land/sea will be protected and managed by customary laws and regulations, approved by government in community-prepared management plans *Source: Pedro Rosabal*
Isle of Eigg, Scotland, UK	Community-based purchase of the island	Small island community, in partnership with Scottish conservation NGO and regional agency, bought island for conservation and sustainable development	7,500 hectares of high biodiversity and scenic value now conserved by local people who have developed sustainable forms of tourism *Source: web site*

It is important to keep a sense of proportion. Not all community-based resource use is sustainable and not every local group will manage nature in a responsible way. But there is enough hard evidence now, from many parts of the world, to show that the idea of CCAs needs to be recognised as a fourth arm of conservation - alongside the efforts of governments, NGOs and the private sector. There are important lessons being learnt too about why such approaches work better in some countries than in others. For example, CCAs will thrive where power is devolved to local people, where human rights are respected and where decision-making is transparent and equitable. Where this happens, CCAs contribute to conserving biodiversity and landscapes but also demonstrate the integration of conservation and development, contribute to national protected area systems, and be part of ecological networks and bioregional planning – see next section.

Bioregional Planning/Ecological Networks

IUCN has recently published a review of ecological networks (Bennett and Wit, 2001). It draws in part on earlier unpublished work by Kenton Miller and Larry Hamilton (1997). What both of these overviews show is that there are initiatives now underway in many parts of the world 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 several different names which relate to similar concepts (e.g. ecological networks, bioregional planning, landscape-scale or ecoregion-based planning).

Bennett and Wit found 150 such schemes in all, and studied 38 in detail. Of these, over a third were being implemented. Their examples are found in all parts of the developed and developing worlds. As the examples in Box 12 show, ecological networks vary greatly in size, from county- to continental-scale, and the aims sometimes differ too. Several of them involve two or more countries. Roughly half of such initiatives are government-led; the rest inspired by non-governmental

organisations. Many form parts of international programmes (e.g. Biosphere Reserves); others are stand-alone schemes. But 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 programmes for the restoration of eroded or destroyed ecosystems; and
- They seek to integrate economic land use and biodiversity conservation.

Box 12: Some ecological network/bioregional planning initiatives (Bennett and Wit, 2001)

Title of initiative	**Areas involved**	**Leading organisations**	**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	· 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 supporting natural and human communities	· 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; stimulate self- sustaining natural processes; develop/ restore connectivity	· Core areas · Ecological corridors · Buffer zones · Nature development areas
Cheshire Econet	Cheshire County, UK (local)	Cheshire County Council/EU LIFE programme	Manage landscape for people and wildlife, and improve the connections between surviving wildlife habitats.	· Core areas · Restoring and re-connecting landscape features

All these 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 also set the standards towards which restoration schemes can aspire. Such projects, therefore, have the effect of linking the protected areas to the land and water areas around, and to the regional economy. 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.

The institutional and capacity building implications of bioregional or ecological network planning are formidable. Three kinds of challenges arise:

- to build the capacity to plan and manage at a scale that is unfamiliar to most protected areas 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 at a large geographic scale, and
- to establish co-operative institutions to ensure the delivery of results, where previously agencies were typically more narrowly focused (Miller, 1996).

While it is not suggested that protected areas managers – with their limited responsibilities and geographically circumscribed powers - should lead such initiatives on their own, their full involvement in them 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

Box 1 summarises the IUCN management categories for protected areas. While IUCN insists that *all* categories are important, traditionally the focus of most conservation attention has been on categories I-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 them is greater than never if much biodiversity is to be protected. However there is now a growing interest also in protected areas which are lived-in landscapes, that is Categories V and VI, the so-called multiple use protected areas[8]. To promote interest in the approach, IUCN has just published guidelines on the management of Category V protected areas: Protected Landscapes and Seascapes (Phillips, 2002). This section draws on that advice.

In the IUCN Guidelines for Protected Area Management Categories (IUCN, 1994) Category V, Protected Landscape/Seascape are defined thus:

> *Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.*

With more than 50 years of experience in Europe, and a growing body of experience from elsewhere, it is now possible to identify with confidence the main features of the Category V approach. Thus it is concerned with both people and their environment, and with a range of natural and cultural values. It focuses on areas where

[8] 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 use. Many of the reasons for a growing interest in Category V apply to Category VI as well, for example the emphasis on sustainable use of natural resources. But there is an important difference. While Category V protected areas are lived-in working 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 remain that way.

people/nature relationships have produced a landscape with high aesthetic, ecological, biodiversity and/or cultural values, and which retains integrity. It views communities, and their traditions, as fundamental to the success of the approach: therefore stakeholder and partnership approaches are needed. The approach recognises the need to support the stewardship role of the private landowner or manager (including that of Land Trusts or similar bodies). It usually involves management arrangements that are resolved through decision making at local government or community levels. It can bring social, economic and cultural benefits to local communities, along with environmental, cultural, educational and other benefits to a wider public. It requires that management activities are integrated, promote sustainability and help to resolve conflicts. Properly run, such areas can offer models of sustainability for wider application elsewhere in rural areas. But as with all protected areas, Category V protected areas require effective management systems, including objective setting, planning, resource allocation, implementation, monitoring, review and feedback.

Several reasons explain why so little international interest was shown in Category V protected areas in the past. It was seen (wrongly) as an essentially Euro-centric idea which had little application elsewhere, and as a superficial concern with how places *look*. Also most scientists argued that the global priority should be the remaining core "natural" areas. Such views prevailed also because of the dominance of biologists, zoologists and other natural scientists in the conservation movement. Finally there was the power of the essentially North American model of a national park: a simple concept that stood in marked contrast to the complex idea of protecting environments that people had occupied and shaped for maybe thousands of years. The contrast is illustrated by Box 13.

Box 13: Category II and V contrasted

Characteristic	**Typical situation in Category II National Parks**	**Typical situation in Category V Protected Landscape/seascape**
Natural environment	Apparently “natural” ecosystems	Greatly modified ecosystems
Management objectives	Ecosystem conservation and tourism	Landscape protection, tourism, local economy and culture, sustainable use
Principal economic land uses	Tourism	Farming, forestry, tourism
Land/water Ownership	Mainly publicly owned	Mainly privately owned
Management Agency	Central/provincial government	Provincial/Local government
Human settlement	Limited (sometimes illegal)	Long established, ‘part of the scene’

The focus is now being placed more on outstanding, lived-in, working landscapes because of important conceptual and operational advances in conservation and protected areas. Thus, conservation biology has shown the need to work at the ecosystem scale and across the wider landscape, through bioregional planning (see above) in which lived-in landscapes must form a part. It is accepted too that protected areas cannot be treated as islands, but must be seen in their larger context. The existence of “paper parks” - protected areas in name only – shows that reliance on regulation and enforcement is costly and too often fails. Also, there is a new understanding of the link between nature and culture. Thus healthy landscapes are

shaped by human culture as well as by the forces of nature; rich biological diversity often coincides with cultural diversity; and conservation cannot be undertaken without the involvement of those people closest to the resources.

Although the greatest concentration of Category V protected areas is to be found in Europe, under names like Regional Nature Park (France), Nature Park (Spain), Protected Landscape Area (Czech Republic) and National Park (UK), there are Category V protected areas in many other parts of the world. Examples are:

- the small island developing States in the Caribbean and the Pacific;
- the traditional farming lands of the Andes;
- the traditional coffee growing areas of Mexico and Central America;
- the long settled landscapes of eastern parts of the USA and Canada;
- the growth, within the US national park system, of new protected areas relying on partnerships with local communities;
- wildlife dispersal areas of East Africa;
- the ancient 'hemas' reserve and irrigation systems of Saudi Arabia;
- the mountain communities of the Himalayas, e.g. the Annapurna Conservation Area, Nepal;
- Japan, where many national parks are managed as Category V protected areas; and
- the rice terraces of the Philippines.

In all, UNEP/WCMC recorded in 1997 3,178 Category V protected areas on its data base covering in all 676,892 km^2 - that is 23.8% in terms of the number of all protected areas and 11% in terms of areas covered (IUCN, 1998). The publication of IUCN's guidelines to Category V protected areas (see above) is an indication that this is becoming a growth sector for new protected areas.

Conclusion

It is not the purpose of this paper 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 be secured 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 in any case strictly government owned and managed protected areas alone are no longer enough. What is called for in the twenty-first century, and what is now emerging in the new paradigm, is a broader way of looking at protected areas.

It is broader in three senses:

- by including a wider range of actors among those who initiate and manage protected areas, of which 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 the lived-in, working landscape as Category V and VI protected areas.

There have in fact been huge conceptual advances in thinking about protected areas over the past 30-40 years, as this paper has shown. In theory, at least, we know now what needs to be done to achieve successful protected areas. The challenge as always is to apply the theory. This requires that we develop support among people and their political leaders for protected areas. This in turn depends upon us being able to show the benefits that they can bring to society. That is the theme – Benefits beyond Boundaries – of the Fifth World Parks Congress to be held in Durban this coming September.

Adrian Phillips - January 2003

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