Defining Protected Areas

An international conference in Almeria, Spain, May 2007

Edited by Nigel Dudley and Sue Stolton

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Preface

The “Categories Summit” which is reported in these proceedings was a major contribution to the revision of the IUCN protected area management categories. The proceedings are published in a spirit of openness and to provide easy access to much of the background thinking that led to the revised publication.

The Summit took place in 2007, these proceedings are being published in 2008 as a source document at the same time as the revised categories.

The final version of the revised category guidance can be downloaded from IUCN at:
data.iucn.org/dbtw-wpd/edocs/PAPS-016.pdf

Contents

Executive summary

The IUCN Summit on Protected Area Management Categories was held in Almeria, Spain in May 2007. It aimed to test the opinions of key thinkers and policy makers regarding the revision of guidelines to interpretation of the six IUCN protected area categories. The meeting was generously supported by the Junta de Andalusia, the Spanish Ministry of Environment and the foundation Biodiversidad.

The meeting operated through plenary sessions and a series of specialised workshops, with many presentations and time for detailed discussion. There were two field trips, midway through the meeting and at the end. More than a hundred people attended from over fifty countries around of the world.

The summit reached either consensus or overwhelming majority support on several key points; workshops agreed on other issues without dissent in plenary. While the summit was not a decision-making forum, which is the role of the World Commission on Protected Areas (WCPA) Steering Committee, it did give IUCN a clear mandate to incorporate the conclusions in the draft IUCN protected area guidelines for further discussion. This has now been done and the main conclusions have so far been supported by IUCN members. The following proceedings outlines the main outputs and a summary of decisions regarding process and next steps.

Most significant plenary outputs

- ✓ The IUCN definition should be retained, with wording changes to broaden the description of main purpose (e.g. *nature conservation* rather than just *biodiversity*) and with a more precise clarification of cultural links: the proposed definition should be widely debated within IUCN.
- ✓ The definition should be clarified with a series of principles, including the concept that: "**many sites … can have other goals as well, at the same level, but in the case of conflict nature conservation has to be the priority**".
- ✓ The six current categories should be retained but with more clarification and tighter standards, in line with the proposals outlined in the current volume. Some specific modifications were agreed at the meeting and some areas that needed further discussion were also outlined.
- ✓ All categories can make an equal contribution to conservation but not all categories are equal in every situation and management objectives should therefore be chosen with respect to the particular circumstances.
- ✓ There was strong support for linking category with management effectiveness but some confusion about how this might be achieved.
- ✓ There was also strong recognition of the need to reflect a wide range of governance types within the new category guidelines.

Main agreed workshop outputs – the guidelines should:

- ✓ Define a protected area **system** as well as a protected area
- ✓ Provide advice on *where* particular categories are suitable
- ✓ Incorporate the **governance matrix** and recognise other governance types
- ✓ Explain the role of categories in **conservation planning**
- ✓ Explore voluntary verification or **certification** of categories to ensure that the management objectives match those of the assigned category
- ✓ Identify category-specific criteria for **management effectiveness**
- ✓ Look at ways to integrate **company reserves** into protected area systems
- ✓ Refine guidelines to **zoning** large protected areas into different categories
- ✓ Clarify **names** of protected areas (but in general there was support for these being retained)
- ✓ Agree common mechanisms and appeal options for **assignment**
- ✓ Improve links between categories and **conventions** including in particular World Heritage, Ramsar and the Convention on Biological Diversity
- ✓ Focus the management matrix more on **freshwater** issues and include specific guidance about categories in inland waters
- ✓ Clarify limits of **forest** protected areas re plantations, commercial forestry and category VI
- ✓ Mainstream **marine** issues in the new guidelines rather than produce separate guidelines
- ✓ Develop a principle to integrate **species** and protected areas

A revised version of the category guidelines is being developed and will be presented to the World Conservation Congress in late 2008 at Barcelona, Spain.

Preface

Nik Lopoukhine

The IUCN protected area categories are both a powerful tool for planning and recording protected area systems and, more fundamentally, are also the philosophical framework that establishes a collective vision for protected areas and determines where they fit into the portfolio of available conservation measures. As such, the strength of the system is enormously important.

The current system of a protected area definition and six associated management categories was established in 1994 and reconfirmed by IUCN members at the 2004 World Conservation Congress (WCC) in Bangkok. However, delegates also recognised that protected areas exist in a different world than was the case in the early 1990s and that the categories needed to evolve to reflect these changes. As a result, the World Commission on Protected Areas was requested by IUCN members to re-examine the whole system and in particular to prepare a new version of the category guidelines.

The WCC requested that WCPA run a fully participatory process in preparing the revision and by most accounts we achieved this; through commissioning inputs from around the world, running an e-forum and holding or taking part in many regional meetings. Literally thousands of people have been involved. But participatory processes are always easier to talk about than to run in reality. While difficult to make sure that everyone has a chance to input, to avoid the domination of a few loud voices, and get proper regional representation at the end of the day I feel confident that we provided for and indeed achieved our objective of participation of interested parties.

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One major step in this process was a meeting – which we rather grandly called a *categories summit* – held in Almeria, Spain in May 2007 and generously supported by the regional government of Andalusia, the NGO Biodiversidad and the Spanish Ministry of Environment. Their enthusiasm and commitment allowed us to bring together over a hundred invited people from around the world to discuss a number of key issues relating to the categories. The meeting was not decision-making, but it did provide a major opportunity for some of the world's protected area experts to discuss these issues over a period of several days and to reach consensus. On some key points we went as far as having a show of hands to gauge levels of support and this proved enormously important in giving us the confidence to make recommendations to the IUCN Council.

We asked a lot of people who attended: the meeting had a packed agenda, and we are extremely grateful to everyone who gave up their time to make the summit a success and particularly to the people who wrote papers. Given the importance of the process, and the high quality of many of the inputs, we are publishing the proceedings as a companion volume to the revised edition of the protected area category guidelines, which was itself released at the 2008 World Conservation Congress in Barcelona in October 2008. The proceedings is in my view a further indication of not only the care with which IUCN is addressing issues of protected area policy and management but also to serve as a testimony to the convening power of IUCN. The contributions of so many and from variable viewpoints could only have happened under the umbrella of IUCN. This volume is a rich collection of wisdom that I am sure will assist us all as we work with governments and civil society to implement the new guidelines in the future.

Acknowledgements

The fact that IUCN was able to hold a major meeting to discuss the protected area management categories was due entirely to the generosity of various government and non-governmental institutions in Spain, which provided the funding for the meeting, along with a great deal of the logistical help.

We would like to thank in particular Fuensanta Coves Botella and Maria Rosario Pintos Martin of Junta de Andalusia; Serrano Rodriguez of the Ministry of Environment in Spain; and Antonio Serrano of Biodiversidad; along with their staff, for the fantastic support and welcome that IUCN received in Spain.

The complex and time-consuming logistics for the meeting were coordinated from the IUCN Mediterranean Office in Malaga by Andres Alcantara and Sophie Moreau and in Gland by Kari Lahti, on secondment from Metsahallitus Natural Heritage Services in Finland, assisted by Delwyn Dupuis, both of whom put in a huge amount of time and energy to make the event a success. Pedro Rosabal and David Sheppard at the Programme of Protected Areas at IUCN headquarters gave generous support to the ideas and practicalities of the meeting and the overall work of the task force.

A number of regional meetings outside of the Summit contributed to the Categories Review process. These included a workshop on Category V protected areas (September 2005) hosted by the Garrotxa Volcanic Zone Natural Park in Spain. Our sincere thanks go to the staff of the Natural Park and also to the Ministry for the Environment and Housing of Catalonia for hosting this session.

The intellectual content of the summit was supplied through the medium of an impressive volume of papers, reprinted here, written by task force members and other experts from around the world. The costs of preparing many of these discussion papers were covered by a generous donation from BP plc and we are very grateful to the company and to Chris Herlugson for this support.

With respect to preparation of papers we would like to thank in particular: Robin Abel; José-Antonio Atauri; Brad Barr; Charles Besancon; Harry Biggs; Luigi Boitani; Grazia Borrini-Feyerabend; Jessica Brown; Neil Burgess; José Courrau; Roger Crofts; Nick Davidson; Jon Day; Charlie Falzon; Lucy Fish; Pete Frost; Dave Harmon; Marc Hockings; Craig Groves; Cyril Kormos, Ashish Kothari; Dan Laffoley; Josep-Maria Mallarach; Stephanie Mansourian; Kenton Miller; Brent Mitchell; John Morrison; Gonzalo Oviedo; Jeffrey Parrish; Andrew Parsons; Marc Patry; Adrian Phillips; Kent Redford; Liesbeth Renders; Carlo Rondinini; Deborah Bird Rose; Fausto Sarmiento; David Sheppard; Daniel Vallauri; Bas Verschuuren; Bobby Wishitemi; and Louisa Wood.

Finally, we would like to thank the people who took time to attend the summit, contributed their ideas and were prepared to meet the often demanding timetable set by the organisers. A list of people attending the summit is given in Appendix 3.

1. Introduction

Thirty years ago, IUCN developed a preliminary system of protected area management categories. In the late 1980s and early 1990s the IUCN Commission on National Parks and Protected Areas (now known as the World Commission on Protected Areas - WCPA), reviewed these, the IVth World Parks Congress in Caracas confirmed a number of changes, and the IUCN General Assembly approved them in 1994. They were published as IUCN Guidelines in the same year (IUCN/WCMC, 1994). Below we summarise the 1994 WCPA definition of a protected area and definitions of the six associated management categories of protected areas.

Definition

An 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.

Categories

- ✓ **Category Ia: Strict nature reserve/wilderness protection area managed mainly for science or wilderness protection** – an area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

- ✓ **Category Ib**: **Wilderness area: protected area managed mainly for wilderness protection** – large area of unmodified or slightly modified land and/or sea, retaining its natural characteristics and influence, without permanent or significant habitation, which is protected and managed to preserve its natural condition.

- ✓ **Category II**: **National park: protected area managed mainly for ecosystem protection and recreation** – natural area of land and/or sea designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

- ✓ **Category III**: **Natural monument: protected area managed mainly for conservation of specific natural features** – area containing specific natural or natural/cultural feature(s) of outstanding or unique value because of their inherent rarity, representativeness or aesthetic qualities or cultural significance.

- ✓ **Category IV: Habitat/Species Management Area: protected area managed mainly for conservation through management intervention –** area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats to meet the requirements of specific species.

- ✓ **Category V**: **Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation or recreation** – area of land, with coast or 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.

- ✓ **Category VI**: **Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural resources** – area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while also providing a sustainable flow of natural products and services to meet community needs.

Categorisation by management objective

Protected areas are categorised according to their primary management objective.

Further explanation: This type of classification system serves a number of valuable purposes as it:

- ✓ Emphasises the importance of protected areas;
- ✓ Demonstrates the range of purposes protected areas serve;
- ✓ Promotes the idea of protected areas as systems rather than units in isolation;
- ✓ Reduces confusion of terminology;
- ✓ Provides an agreed set of international standards;
- ✓ Improves communication and understanding; and

- ✓ Facilitates international comparison and accounting.

Assignment to a category is not a comment on management effectiveness. This distinction is often overlooked. For instance, where category II areas are poorly managed, there is a temptation to re-classify them as category V areas. This is not the intent of the IUCN guidelines, which categorise by management objective. There are, in fact, two questions: [1] "What is the aim of management?" leading to assignment of a category; and [2] "How well is the area managed?" leading to an assessment of management effectiveness.

The IUCN categories system has been designed for global use. The guidance is therefore broad and general rather than being prescriptive and specific. The system should be interpreted flexibly. Because it is based on broad guidelines, regions or countries should interpret them for their own applications.

There are hundreds of different national names for protected areas. The IUCN guidelines are not intended to result in the re-naming of these reserves. All categories are equally important and equally relevant to conservation. It should be noted, however, that some countries may not contain the potential for using all categories. The categories imply a gradation of human intervention, ranging from effectively none at all in the case of some category I areas, to quite high levels of intervention in category V areas. Since category VI was added to the system later it does not fit neatly into the general pattern, but lies conceptually between III and IV.

As the system is based on management objective, it is essentially neutral about the managing agency or landowner. More particularly, there is no presumption that any category will be owned or managed by the State. Categories represent a compromise between the needs and situations of different countries. They are not a perfect fit for all areas, but serve as a guide for interpretation and application at the regional and national levels. Further, no classification system is perfect, and its value really depends not so much on whether each protected area can be 'allocated' to one of the six categories without doubt or difficulty, but on whether the objectives of categorisation are met. Experience since the publication of the 1994 guidelines suggests that this process has certainly led to increased assessment of the roles of protected areas, and better informed debate about how protected areas with different roles and objects relate one to another.

The task force has been established to address a number of urgent issues relating to the IUCN protected area management categories. The IUCN "summit" on the categories, was held in autumn 2006. The task force devoted a year in preparing for the summit, by developing a series of tools, analyses and policy positions that helped build up revised and more comprehensive guidance on use of the categories. Wherever possible, consensus was reached on key points before the meeting, enabling the latter to focus on the most critical issues and where necessary to negotiate on these more formally. The results have been used to develop new guidance on the application and use of the categories.

2. Background

The “Categories Summit” reflects a major milestone in a lengthy process of assessing IUCN’s management categories for protected areas. Agreed in their current form in 1994, the categories are both a powerful instrument for managing and collating information on protected areas and a major manifestation of the philosophical approach to protected areas as reflected in the IUCN membership. As such, they attract interest and passion far beyond what might be expected for something that started out as little more than a statistical tool.

The categories have already been through various earlier iterations and have been the subject of a lengthy assessment coordinated by the University of Cardiff in Wales, UK, in association with IUCN. Understanding the current debate becomes much easier if a little of the history is also available.

To provide some background, the first two papers provide perspectives on the history of the categories from Adrian Phillips and Kenton Miller, both former chairs of WCPA and perhaps the two people who were most closely involved in their development.

2.1. A short history of the international system of protected areas management categories

Adrian Phillips

The background to categorisation

The origins of the modern system of protected area management categories adopted by IUCN in 1994 can only be understood in the context of the history of protected areas themselves. Protected areas are cultural artefacts and their story is entwined with that of human civilisation. Over 2000 years ago, royal decrees in India protected certain areas. In Europe, rich and powerful people protected hunting grounds for a thousand years. Moreover, the idea of protection of special places is universal: for example, it occurs among the communities in the Pacific ("tapu" areas) and in parts of Africa (sacred groves). However, the modern protected areas movement had nineteenth century origins in North America, Australia, New Zealand and South Africa. Other countries were quick to follow suit. While the idea of protected areas spread around the world in the twentieth century, the driving force was different in different regions. Thus, in North America, protected areas were about safeguarding dramatic and sublime scenery; in Africa, the concern was with game parks; in Europe, landscape protection was more common.

By now, nearly every country has adopted protected area legislation and designated sites for protection. Many public, private, community and voluntary organisations are active in creating areas for protection. And many different terms are used at the national level to describe protected areas: for example, there are about 50 used in Australia alone. There are also international networks of protected areas created under global conventions (e.g. World Heritage and Ramsar Conventions) and regional agreements (e.g. Natura 2000 sites in Europe). In all, over 100,000 sites meet the IUCN definition of a protected area (see below).

Already this very short history hints at some of the issues that gave rise to the development of the categories system. Thus protected areas have been set up for different reasons, exist in wilderness areas and in long-settled landscapes and are present in all kinds of terrestrial and marine habitats. They have been given many different names at the national level, and usually derive from national legislation or international agreements. They have come about through various types of governmental and other initiatives. Protected areas are owned by different interests and are run by different kinds of organisation.

The start of an international framework for protected areas

As protected areas were set up in one country after another, each nation developed its own approach, and there were initially no common standards or terminology. The only shared idea was that important scenic, wildlife or outdoor recreation areas should be identified and protected for the public good.

The first effort to clarify protected area terminology was made in 1933, at the International Conference for the Protection of Fauna and Flora, in London. This set out four categories: national park; strict nature reserve; fauna and flora reserve; and reserve with prohibition for hunting and collecting. In 1942, the Western Hemisphere Convention on Nature Protection and Wildlife Preservation also incorporated four types: national park; national reserve; nature monument; and strict wilderness reserve (Holdgate, 1999).

The emergence of a world-wide conservation movement after the Second World War encouraged the idea of a global framework for protected areas. In 1959, the UN Economic and Social Council (ECOSOC) recognised that "national parks and equivalent reserves are important factors in the wise use of natural resources". In response, IUCN's newly formed protected areas commission – now the WCPA - prepared a "World List of National Parks and Equivalent Reserves", the first version of the now familiar "UN List of protected areas". It was presented at the First World Conference on National Parks in Seattle (1962), along with a paper on the 'nomenclature' of protected areas by C. Frank Brockman (Brockman, 1962).

In 1966, IUCN published the second version of the UN list, using a simple classification system was used: 'national parks', 'scientific reserves' and 'natural monuments'. The IUCN General Assembly in New Delhi in 1969 defined 'national park' as: "a relatively large area where one or several ecosystems are not

materially altered by human exploitation and occupation". The assembly called on countries "not to describe as national parks" those areas that did not meet the definition.

IUCN's Senior Ecologist, Dr Ray Dasmann, proposed the following system of protected area in a paper for the Second World Parks Conference (1972):

1. Protected Anthropological Areas (Natural Biotic Areas, Cultivated Landscapes, Sites of Special Interest)
2. Protected Historical or Archaeological Areas (Archaeological Sites, Historical Sites)
3. Protected Natural Areas (Strict Natural Areas, Managed Natural Areas, Wilderness Areas)
4. Multiple Use Areas
5. National Parks
6. Related Protected Areas (Provincial Parks, Strict Nature Reserves, Managed Nature Reserves, National Forests and Related Multiple Use Reserves, Anthropological, Archaeological or Historical Reserves) (Dasmann, 1974; IUCN, 1974).

The 1972 Conference called on IUCN to "define the various purposes for which protected areas are set aside; and develop suitable standards and nomenclature for such areas" (Elliott, 1974). Between 1971 and 1975, IUCN published further editions of the UN List, and the World Directory of National Parks and Protected Areas in 1975. By the mid-1970s, several trends were apparent. More protected areas were being set up, but there was confusion over the meaning of terms like 'national park' and 'nature reserve'. While some people favoured a focus on national parks, with other types of protected areas covered by catch-all phrases like 'equivalent reserves' or 'other protected areas', others advocated a variety of approaches to protected areas to complement the attention on strictly protected areas. New international programmes and treaties were making an impact (e.g. the Man and Biosphere Programme, and the Ramsar [1971] and World Heritage Conventions [1972]), while there was an emerging debate on the need for an international terminology for protected areas.

The 1978 IUCN report on categories, objectives and criteria

This was the background to CNPPA's[1] decision in 1975 to develop a categories system for protected areas. The work was funded by the Rockefeller Foundation and led by Dr Kenton Miller, chair of the CNPPA Committee on Criteria and Nomenclature. He had already developed a matrix to illustrate his idea of classifying protected areas by management objectives and successfully developed this in field work in Latin America (pers. comm.). His group's final report was issued in August 1978 as a "discussion paper", but it quickly became seen as IUCN guidance, offering clarification where there had previously been much confusion (IUCN, 1978).

The committee incorporated the 1969 New Delhi definition of a national park, but recognised that this was only one approach among many to protected areas conservation. It advocated using a range of categories, based on management objectives rather than national names.

The report argued that this categorisation system would: show how national parks can be complemented by other categories of protected area; help each nation to develop management categories to reflect its needs; and ensure that "regardless of nomenclature used by nations …. a conservation area can be recognised and categorised by the objectives for which it is in fact managed". It would also: help remove ambiguities and inconsistencies due to different "administrative, institutional, legal and political mechanisms among nations"; help IUCN assemble and analyse information on protected areas, which could then be "stored, recalled, udpated and printed"; and give the scientific community access to better data on conservation.

The key points to note about the 1978 system are these:

- ✓ It involved ten categories (see box 1)
- ✓ Apart from Group C, the categories derive from management objectives
- ✓ All categories are important; no category is inherently more valuable than another
- ✓ Governments were encouraged to develop *systems* of protected areas based on a range of appropriate categories
- ✓ It was assumed that land in certain categories was likely to be owned or managed by government, but recognised that other interest groups might also be involved,
- ✓ The system aimed also to influence land use planning in areas not usually considered as being protected.

But limitations in the system soon became apparent. It did not contain a definition of a 'protected area', so the 'universe' covered by the categories as a whole was not clear, and it caused confusion that several terms were used to describe the entire suite of ten categories: 'categories for conservation management',

[1] Commission on National Parks and Protected Areas, the predecessor to the WCPA.

'conservation areas' and 'protected area categories'. Also it included two international categories (IX and X), while acknowledging that many such sites might also be classified under another category. Some of the distinctions between the categories were unclear; and the system was terrestrial in its concepts and language, and lacked a marine dimension.

Box 1: The protected areas categories system advocated by IUCN in 1978

Group A: categories for which CNPPA will take special responsibility

I	Scientific Reserve
II	National Park
II	Natural Monument/National Landmark
IV	Nature Conservation Reserve
V	Protected Landscape

Group B: other categories of importance to IUCN, but not exclusively in the scope of CNPPA

VI	Resource Reserve
VII	Anthropological Reserve
VIII	Multiple Use Management Area

Group C: categories that are part of international programmes

IX	Biosphere Reserve
X	World Heritage Site (Natural)

The adoption of the 1994 system of management categories

The 1978 system was used to compile the 1993 UN list of protected areas (which set out protected areas under categories I-V). It was also taken up in some national legislation. However its shortcomings soon became evident. In 1984, therefore, CNPPA established a task force under the chairmanship of Hal Eidsvik to consider up-dating the categories system. It had to take on board not only concerns about the 1978 system but also subsequent IUCN General Assembly resolutions on topics like wilderness areas, indigenous peoples, and protected landscapes and seascapes. The task force conducted a wide-ranging debate, initially amongst Commission members, then more extensively. It reported to CNPPA members in 1990, advising that a new system be built around categories I-V of the 1978 system, whilst abandoning categories VI-X (Eidsvik, 1990). The report was adopted by CNPPA at its meeting in Perth (27 November, 1990) and tabled for information at the IUCN General Assembly next day. However CNPPA referred it to the upcoming 1992 World Parks Congress for review before any action was to be taken.

This Fourth World Congress on National Parks and Protected Areas (a title that suggests that even then that national parks were seen as somewhat different from other protected areas), was held in Caracas, Venezuela[2]. It included a three day workshop on the category system. Participants addressed the task force's recommendations, and were informed by a paper from an IUCN consultant (Foster, 1992). A major feature of the workshop debate was a move, led by several experts from developing countries, to add a new category to the first five of the 1978 system, so as to accommodate the idea of protected areas for sustainable use of natural resources.

Acting on the workshop's conclusions, the Caracas Congress adopted Recommendation 17. This called on CNPPA and the IUCN Council to endorse a system of six protected area categories based on management objectives, recommend this to governments, and explain it through guidelines. In fact, the IUCN Council referred this matter to a higher level. In January 1994, ten years after the review of the 1978 system had begun, the IUCN General Assembly, meeting in Buenos Aires, approved the new system, commended it to governments and called on CNPPA to finalise guidance to explain it.

Later in 1994, IUCN and the World Conservation Monitoring Centre (WCMC) published "Guidelines for Protected Area Management Categories", in English, French and Spanish (IUCN, 1994). The guidelines provide an introduction to the system, explain each category in turn and set out a number of worked examples of the application of the system to existing protected areas.

The system explained – the main points from the 1994 guidelines[3]

Introducing the 1994 guidance, the then Chair of CNPPA, P.H.C. (Bing) Lucas wrote: "These guidelines have a special significance as they are intended for everyone involved in protected areas, providing a common language by which managers, planners, researchers, politicians and citizens groups in all countries can exchange information and views".

The guidelines aimed to alert governments to the importance of protected areas and encourage them to

[2] Note that during the 1990s this remaining use of "national parks and (other) protected areas" was progressively removed from: the title of CNPPA, which became in 1996 the World Commission on Protected Areas; the *UN List of National Parks and Protected Areas*, which became the *UN List of Protected Areas* in 1998; and the titles of the series of international parks congresses, the most recent (2003) being called the 'Fifth World Congress on Protected Areas'.

[3] Only the briefest explanation is offered here: readers are referred to the guidelines themselves for an authoritative explanation.

develop systems of protected areas with management aims tailored to national and local circumstances. The also aimed to: reduce the confusion around the use of many different terms to describe protected areas; provide international standards for global and regional accounting and comparisons between countries, using a common framework for the collection, handling and dissemination of protected areas data; and generally to improve communication and understanding between all those engaged in conservation.

The 1994 categories system was not originally intended to set, or drive up, management standards, nor to lay down a template for use at the national level. The idea was that protected areas should be established to meet national or local needs and then "labelled with an IUCN category according to the management objectives".

Part I of the Guidelines sets out a definition of a 'protected area', which is the foundation of the system. If an area does not meet this definition, it is not a protected area as far as IUCN is concerned and is not covered by any protected area category: but any area that is recognised under this definition should be capable of being assigned to one of the six categories.

The first five categories equate broadly to the first five of the 1978 system, whereas category VI embodies some of the ideas from former categories VI, VII and VIII, and responds to the debate in Caracas Congress workshop. While the new guidelines give prominence to the numbers and related objectives, they do not entirely bury the names attached to the categories, which some see as inconsistent with the need to develop a common terminology that is quite independent of that used in different ways at the national level.

The 1994 guidelines are based on some key principles:

- ✓ The basis of categorisation is by primary management objective assignment to a category is not a commentary on management effectiveness
- ✓ The categories system is international
- ✓ National names for protected areas may vary
- ✓ All categories are important
- ✓ A gradation of human intervention is implied.

A chapter in Part I of the 1994 Guidelines deals with the application of the categories system and provides some basic rules for its interpretation. Many of the questions that are often asked about the system are answered here.

Part II of the 1994 Guidelines set out a fuller explanation of each category, including a definition, management objectives, guidance for selection, organisational responsibility and the equivalent category in 1978 system. This reveals some interesting changes from 1978. Whereas the definitions etc. used then implied that human occupation or resource use were unwelcome or unacceptable in categories I-IV, the 1994 system explicitly recognises that some permanent human presence – albeit very slight in certain cases – may occur in all categories except Ia (Strict Nature Reserve) (Ravenel and Redford, 2001). While the 1978 system is fairly prescriptive about the type of agency etc. that would normally manage each category that of 1994 allows for more flexibility. And while the 1978 system assumes all protected area categories are managed for the broader public good, the 1994 guidance recognises that the values of indigenous peoples and other local groups should also be taken into account. To allay the fears of some that category VI might be used to include large commercially worked forests, the guidelines lay down some qualifying considerations for this category. Such places must fit within the overall definition of protected area, be managed for the long term protection and maintenance of biodiversity, comprise at least two thirds in 'an essentially natural state' (this is defined), and exclude large commercial plantations.

Part III of the 1994 Guidelines contains 40 case studies, showing how the categories have been applied in 33 countries. These pen portraits vary from a short paragraph to a full page with accompanying photograph.

Developments since 1994

Since the publications of the guidelines, IUCN and WCPA have actively promoted the understanding and use of the categories system in many countries and international fora. For example, national level workshops have been held to explore the use of the guidelines in a local context (e.g. Australia Nature Conservation Agency, 1995); and expert advice has been offered to countries around the world on the use of the categories in their legislation and policy work (e.g. China, Madagascar, Vietnam). IUCN has been involved in publications on how to apply the guidelines in specific geographical or other contexts (e.g. EUROPARC and IUCN, 1999; Bridgewater et al., 1966). There are many references to the 1994 system in IUCN/WCPA publications, notably the best practice guideline series, including advice on linking the objectives-based categories system to assessing management effectiveness (Hockings et al., 2000) and a specific volume of guidelines for category V protected area (Phillips, 2002). The 1994 categories were used in compiling the 1997 and 2003 versions of the *United*

Nations List of Protected Areas (IUCN/WCMC, 1998 and Chape et al, 2003). The category system was the cornerstone of a WCPA position statement on mining and protected areas, which was taken up in a recommendation (number 2.82) adopted by the IUCN World Conservation Congress in Amman.

IUCN worked to secure the endorsement of the system by the CBD: at the 7th Conference of the parties to the CBD in Kuala Lumpur (Feb. 2004), governments accepted that the system provided a basis for reporting and recording, and encouraged governments and others to assign protected areas to categories. At the Durban Worlds Parks Congress (2003) and the Bangkok World Conservation Congress (2004), proposals were made to add a governance dimension to the categories. Finally, IUCN supported a major piece of research by Cardiff University, UK on the use and performance of the 1994 category system, *Speaking a Common Language*. The results were discussed in draft at the World Parks Congress (2003) and published for the Bangkok World Conservation Congress (2004) (Bishop et al., 2004). A digest of key papers was published in a special number of *Parks* in 2004 (IUCN, 2004). This research project helped to bring the WCPA Categories Task Force into being and to initiate the review of the guidelines that will be undertaken in Almeria in May 2007"

Conclusion

Protected areas represent an immense investment around the world in looking after our environment. With so much now at stake, nationally and internationally, it is vital that action and dialogue about these special places be well informed and based upon a shared understanding among all the interests involved. This is the background to the idea of categorising protected areas by their objectives. After some limited initiatives by a few IUCN protected area experts in the 1960s, a pioneer effort was launched in 1978. The revised version that was issued in 1994 has now received inter-governmental recognition. WCPA and IUCN have thus brought a much-needed measure of order and systematisation to national and international work on protected areas. However, it is clear from developments since 1994, and in particular from the work of the *Speaking a Common Language* project, that the system of protected area management categories continues to evolve, that new things are expected of it and that it needs to be re-interpreted in light of experience of its application and fast changing circumstances.

For a fuller account of the history of the categories, see *Parks* **14** (3): The History of the International System of Protected Areas Categorisation, Phillips A, from which much of this text has been drawn.

2.2. A commentary on the origins of the category system

Kenton Miller

Perhaps it is of value to recall the underlying analysis that led to the formulation of the "categories matrix," originally launched through the UNFAO Wildland Management Regional Project for Latin America, in 1974. A copy of the original matrix is attached in English (Figures 1). It is most easily read in color. While the terms and concepts that I present here reflect the thinking and practice in the decade of 1970s, I offer them with the thought that they may still be of some value in guiding our actions today.

But, first a bit of history. At the First World Conference on National Parks, held in Seattle, USA in 1962, C.F. Brockman presented a paper in which he identified over 140 designations for natural conservation areas then in use around the world, and noted the confusion caused by this plethora of terms. Later, Raymond Dasmann proposed a simplified scheme for reducing this diversity of nomenclature to a more tractable framework.

Two experiences in 1974 led me to design a matrix that would present the concept of management categories in the form of a decision-making tool: First, the Minister of Agriculture of Costa Rica asked my Costa Rican colleagues and me, with some curiosity and exasperation: "How much land do you want for parks and reserves?" My reply was, "That depends upon what you and the nation want from your wildlands." The Director of Forestry in Cuba asked me a similar question a few months later while on FAO mission to advise on the country's national park programme. In both cases, the issue was to first determine what the objectives were, and then inventory what wildland resources were available from which to manage for those goods and services.

In 1975, Miller (yours truly), supported by a grant from the Rockefeller Brothers Fund, led a team, which among various activities related to protected areas in Latin America, developed a guide for the designation of natural protected areas, employing a limited nomenclature. Following discussion with colleagues in the Commission, UNESCO and FAO, the first draft was tabled in 1978 this approach to designating "management categories" has now been in use internationally, been given the support of governments, and acknowledged by the Convention on Biological Diversity.

1. **Wildland**. The practicing informal definition of a "wildland" was: "an area characterized by its wild natural environment, including forest, savanna, swamp, coastal zone, marine, and so on, where the intervention of humans had been minimal; or stated alternatively: where natural capital and natural ecological processes still dominate the area." This definition excluded agriculture, grazing with domestic livestock, and forest tree plantations. It did not, however, exclude such borderline cases as vicuna grazing at the Pampas Galeras in Peru, the restored semi-natural areas in the new parks of South Africa, or the landscape reserves in UK and other European countries.

2. **Protected Area**. This referred to geographic spaces which, because of their particular values for conservation purposes, warranted special forms of management ranging from total closure, except for protection purposes, to direct human use, to various forms of intervention required to maintain or restore habitats, re-introduce extirpated spaces, remove invasive species, or facilitate visitation by scientists or the public for purposes of research, monitoring, recreation and education. Tourism *per se* was considered to consist of the facilitation of recreational visitation: roads, lodging, food services, guide services, and water and sanitation, and so on.

3. **Objectives of management.** Early on in the conservation movement it was perhaps sufficient to simply suggest that the purpose of protected areas was to "conserve nature." Subsequently, the term "conservation" was seen to be very broad, carrying with it the sense of retaining, maintaining, saving as opposed to consuming, or more technically, using natural resources at rates that ensure the sustainability of the resource. Later, we felt the need for more precision to guide policy and management action. Hence, the meaning of conservation was "unpackaged." From the "unpackaging" the "objectives of management" listed in box 2 were drawn.

Box 2: Primary conservation objectives

- ✓ Maintain sample ecosystems in their natural state
- ✓ Maintain ecological diversity and environmental regulation
- ✓ Conserve genetic resources
- ✓ Provide education, research and environmental monitoring
- ✓ Conserve watershed production
- ✓ Control erosion, sediment and protect downstream investments
- ✓ Produce protein from wildlife, sport hunting and fishing
- ✓ Provide recreation and tourism services
- ✓ Produce timber and forage on a sustainable basis
- ✓ Protect sites and objectives of cultural, historical, archaeological heritage
- ✓ Protect scenic beauty and green areas
- ✓ Maintain open options, management flexibility and multiple use
- ✓ Stimulate rational use of marginal lands and rural development

Source: *Wildland Management – A Programme for Environmental Conservation in Latin America*, Technical document number 4, FAO Regional office, Santiago, Chile 1974

4. The unpackaging of "conservation" provided the opportunity to address objectives that are today of such critical importance for the promotion of sustainable development without jeopardizing ecosystem conservation. The Convention on Biological Diversity calls for the maintenance of unique forms of genetic, species, and landscape diversity. This might include, for example, the site of particular varieties of tree species, the seeds or cuttings from which are critical for genetically improving timber development elsewhere in the country to expand the source of paper needed in response to growing literacy rates. Similarly, one could imagine the countries of the Near East establishing reserves to protect wild varieties of the grains that today feed much of the world's human population and from which even greater productivity will be required. The restoration of habitats and/or extirpated species, such as the wolf in North America, the Vicuna in Peru, Chile, Ecuador and Argentina, the White Rhino in Southern Africa, the Oryx in the Arabian Penninsula, and the Lynx in Europe, may be dominant goals. By making explicit the purposes of management, the application and monitoring of investments, actions, and policies may be more effective.

5. **Compatible Use**. At issue was to determine what types of uses, or better, what objectives, could be pursued in the geographic space, including sub-terranian and the above-ground air spaces, could be permitted or facilitated without creating conflict between or among objectives or uses, or with the potential of the area to remain in its desired natural dynamic, evolutionary form.

6. The assumption was that, overall, conservation policy would ensure that the area and its natural capital remain in their natural, wild form. In cases where sites important for biodiversity values had been degraded, conservation policy would call for their restoration. In other cases, sustainable uses may deemed compatible with maintaining the natural capital. Furthermore, considering those regions of the world where much of the original "wildness" had been altered by humans over millennia, the policy should be to maintain particular landscapes of the highest value for a wide variety of conservation purposes such as the cases of European landscapes, for example.

7. Thus, for example, harvesting of timber might be incompatible with the maintenance of the area's biological diversity, or with human visitation. Changes in air and water quality, noise, waste, and human movement commensurate with human settlements or transportation routes through wildlands might be incompatible with the area's biodiversity. Alternatively, under careful management, the goal of providing fresh water from an area's watersheds could be compatible with recreation, timber harvesting, and certain levels of human settlement. Furthermore, some multipurpose reserves can retain and maintain certain levels or components of biodiversity while supporting human settlement and use; this is of particular relevance where the protection of particular species of high value are considered to be compatible with human communities and their activities on the land.

8. Thus, the proposed categories matrix of 1974 attempted to demonstrate graphically the relationships among objectives and approaches to management. The requirements of plant and animal growth and development were drawn from biological, ecological, forestry and other sciences in order to take habitat requirements into account. From the economic sciences, such fundamentals as production functions and the production or co-production of goods and services from fixed capital (nature) were determined in order to frame

the potential for producing different goods and services in the same place, at the same time, and upon the same resource base. While not an absolute decision tool, and calling for a certain degree of flexibility, this approach offered the manager a way to select the best category of management.

9. Turning to the dots on the matrix in Figure 1 various levels of compatibility can be suggested. To simulate a hypothetical case: A manager, that is, the individual, agency or community that is responsible for deciding on the best approach to management, consults the matrix and asks of it, first: "What is the objective for which I or we are to manage the area?" Second, "What are the secondary/tertiary objectives?" Then, "Are these objectives compatible?" Or, "Must I/we separate their pursuit in geographic space or in time by, say, zoning them in separate areas, or sequencing them over time by promoting habitat restoration, species re-introduction, and so on?" If the policy is to secure the sources of fresh water, for example, the matrix suggests that there are a variety of approaches that may be compatible. Whereas, if the goal is to maintain biological diversity, then the options are very limited. [To get a more detailed explanation of the matrix, and how to use it, you'll have to consult my 1980 book in Spanish (Miller 1980), or the 1978 English manuscript (Miller 1978).]

10. **Category**. Finally, the manager or policy maker can then assign a name to the area that reflects the compatible set of objectives or uses of the area. The argument of the 1974 proposal was that the selection of category could be reasonably objective by virtue of the analysis which underlies the decision making process. Naturally, it was not absolute and did not pretend to be dogmatic since there were always other factors and considerations involved in these choices. Chief among these factors were the existence of pre-established laws, policies and organizations that already were mandated to manage one or another category; inter-agency cooperation in this overall exercise continues to require a great deal of political flexibility.

11. Ultimately, in spite of these often complex and controversial decisions we must recall that nature and natural areas are unique:

    - ✓ Unlike a man-made machine, wildlands and the biodiversity they contain cannot be created by man; while they can be restored to some extent with great effort and expense, they can be destroyed with great ease;

    - ✓ Again, unlike a man-made machine, man has no spare parts in reserve to replace whatever pieces of nature are destroyed; and,

    - ✓ Wildlands and the biodiversity they contain cannot simply be picked up and transported elsewhere to be replaced by other apparently higher priority uses of the geographic space.

Thus, the commitment to the protection of nature and wildlands is a task of infinite importance and must one of the great legacies of our generation.

ALTERNATIVE METHODS FOR THE MANAGEMENT AND DEVELOPMENT OF NATURAL AND CULTURAL RESOURCES TO ACHIEVE PRIMARY CONSERVATION OBJECTIVES

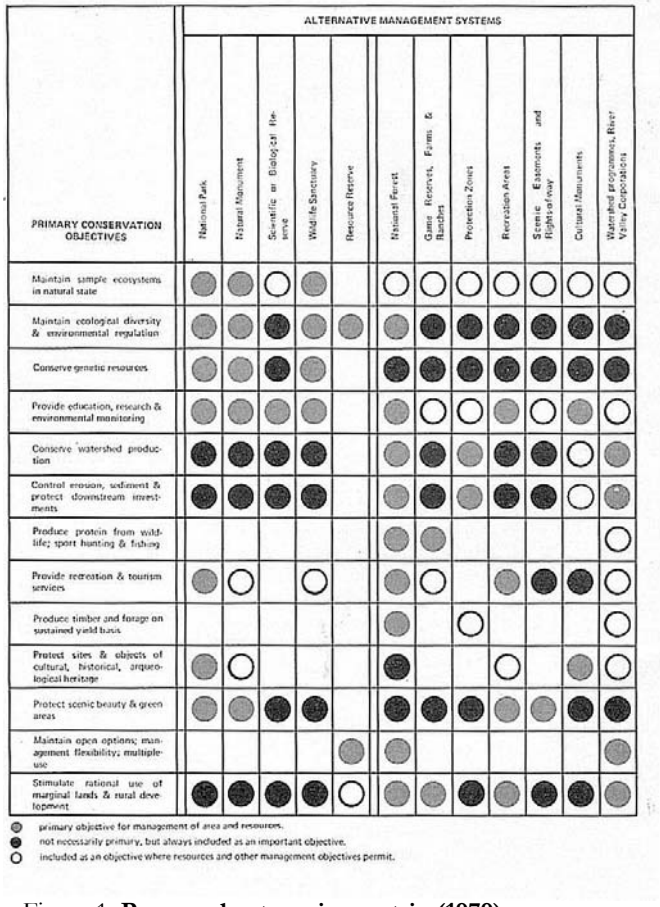

Figure 1: **Proposed categories matrix (1979)**

3. Challenges

Much of the work in preparing for the summit was concerned with the minutiae of technical guidelines. But there are some larger questions to be addressed too: the thorny issue of how IUCN interprets its own definition of a protected area; the questions raised about the role and legitimacy of categories V and VI; and the continuing debate about the term “wilderness”. The following section contains papers that are less about the fine points of revising the category guidelines and more to do with addressing some more fundamental issues about what constitutes a protected area. The first argues that IUCN needs to come to a final decision about the interpretation of the definition of a protected area, and in particular whether it implies that biodiversity should always be a primary aim in protected areas. Next, a group of authors respond to recent criticism of category V protected areas by defending their role particularly in biodiversity conservation. Then, an Australian academic asks some searching questions about what we mean by “wild” as it refers to protected areas. And finally, two members of the Species Survival Commission argue that the aims of protected areas should be focused much more strategically on issues of species conservation.

3.1. Clarifying the IUCN definition of a protected area

Nigel Dudley

The IUCN task force on protected area categories is clarifying how the categories are interpreted and used and preparing new guidelines on their use. But as part of this we need to clarify what the IUCN **definition** means in practice, how it relates to the categories and what purposes it serves for national implementation. This paper summarises key issues and suggests that IUCN must (1) decide if its definition is still necessary and if so (2) exactly what it means.

What is the problem?

Two competing definitions of a protected area within IUCN: there are a range of opinions inside and outside IUCN about **interpretation**. The IUCN definition is: *An 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*. The debate rests on whether "maintenance of biological diversity" is always the, or at least a, primary objective of a protected area, or whether it can be secondary to "natural and associated cultural resources".

Many people believe that biological and cultural values can be of equal value within protected areas. The more controversial issue relates to whether an area can be regarded as a "protected area" in the sense meant by IUCN and the CBD if its management does not prioritise biodiversity conservation, or more precisely if it places biodiversity conservation secondary to other aims such as maintenance of cultural or landscape values. The 1994 *Guidelines for Protected Area Management Categories* suggest that other values can be more important; on p. 8 the "matrix of management objectives" states: "wilderness protection" is a *primary* objective of category Ib and "preservation of species and genetic diversity" is a *secondary* objective. Similarly, "maintenance of traditional/cultural attributes" is a *primary* objective in category V and "preservation of species and genetic diversity" is a *secondary* objective[4]. But many users assume that biodiversity conservation (or a rough equivalent such as wildlife protection) is always a primary objective of protected areas. In effect, two interpretations operate in tandem.

[4] The *Speaking a Common Language* project identified the need to redesign the matrix

Does IUCN need a definition of a protected area?

Before talking about the IUCN definition in detail, some more fundamental questions need to be asked. Does IUCN need its own definition and if so what is it for? Currently there are two globally accepted definitions of a protected area. The Convention on Biological Diversity (CBD) defines a protected area as a: *geographically defined area which is designated or regulated and managed to achieve specific conservation objectives*. The CBD recognises the IUCN categories. One option would be for IUCN simply to adopt the CBD definition; since the signing of the Convention many countries have been basing their own legal definitions around that of the CBD. At present the IUCN definition is the basis for including areas on the World Database on Protected Areas and the *UN List of Protected Areas*. (But note that in practice some areas – e.g. a proportion of Ramsar sites and many forest reserves – are included in the WDPA and UN list without being protected areas.) More fundamentally, the IUCN definition encapsulates a philosophy about the role and purpose of protected areas. There is an assumption in IUCN that it describes something more rounded than the view of protected areas promoted by the CBD, with the latter's understandable focus on biodiversity, and should therefore be retained[5]. The first key decision is therefore:

Decision 1: should IUCN keep its own definition or replace it with that of the CBD?

■ **If IUCN keeps its own definition, does it matter if it is interpreted in different ways?**

Protected areas are complex, and management approaches are still developing: there is an argument that some definitional fuzziness is inevitable and even useful. But there is now a strong opinion in IUCN that this approach no longer works, if it ever did, for several reasons:

[5] This interpretation is itself open to challenge. The CBD's overall aims relate to biological diversity, sustainable use, and benefit sharing and it could be assumed that the CBD definition is therefore broader than IUCN's. But in the absence of explanatory text around the CBD definition, it is difficult to come to a firm conclusion about the relative values of the two. The general opinion within IUCN staff is that the IUCN definition is broader although there are also dissenters from this view!

- ✓ **Statistical analysis needs clarity and lack of ambiguity**: the IUCN definition and categories are used to calculate politically-sensitive statistics and confusion causes frustration. The UN Economic Commission for Europe and the Ministerial Conference for the Protection of Forests in Europe cited lack of clarity in IUCN as reason for developing their own definition of a forest protected area, which now runs in parallel with that of IUCN

- ✓ **Clear definitions are needed when categories are used to limit activities**: such as the ban on mining in category I-IV protected areas recommended at the World Conservation Congress in 2000. Industry stakeholders are demanding that IUCN has watertight guidelines for deciding on what does and does not count as a protected area when this decision could affect investments worth many million dollars.

- ✓ **The existence of an "alternative" CBD definition means that IUCN needs to sharpen its thinking**: it is important that the IUCN and CBD definitions do not clash, given that governments' political commitment to the latter is often stronger. The CBD definition has not yet been amplified and it is therefore timely to clarify exactly what IUCN means.

- ✓ **The categories are impossible to use to maximum benefit if they are applied in the context of a variable definition**: if the IUCN definition is maintained alongside that of the CBD (perhaps as an interpretation and amplification of the CBD definition) then we owe users a clear agreement about what it means.

■ **What does IUCN say?**

A consensus is emerging from senior IUCN management. In autumn 2005, David Sheppard, Head of the IUCN Programme on Protected Areas wrote: "Especially dedicated to me means that biodiversity conservation is a primary aim of protected areas. Also that all protected areas should have biodiversity conservation as an objective, along with other objectives. This does not mean that cultural values are NOT important … Clearly protected areas have a mix of values - most natural areas have some cultural values and vice versa…" Nik Lopoukhine, chair of WCPA, added: "David points out correctly that this definition does not preclude culture but it does place biodiversity as a primary purpose". Achim Steiner and Bill Jackson, respectively the former Director General and current Director Global Programme IUCN, have indicated that they support this interpretation. This is a powerful and welcome clarification for IUCN but it does not end the debate: none of these people has a mandate to decide IUCN's general policy, which is set by members at the World Conservation Congress. Initial responses from an earlier draft shows that other WCPA members have a different interpretation. The next section looks at the implications of choosing one way or the other.

■ **What would choosing one or other definition mean?**

There is no cost-free option for IUCN. Choosing one or other interpretation has implications that might create political tensions. The following two paragraphs contain some informed speculation about what this would mean.

- ✓ **If biodiversity <u>is</u> always a primary purpose: some protected areas might have to be "de-listed"**. It is likely that a proportion of sites on the *UN List of Protected Areas* and the World Database on Protected Areas – including some with categories – would no longer be "eligible" as protected areas. (This is <u>not</u> suggesting that whole *categories* would be ineligible.) It is assumed that governments would react negatively to areas being purged from the UN list, although we do not know if this is true – some areas that appear to be the most ineligible have been added to the WDPA by people other than governments. However, insisting on a "biodiversity first" or "biodiversity at least equal first" approach could alienate governments that have prioritised landscape values. It would risk elevating biodiversity – arguably a current fashion – above values such as ecosystem services and cultural benefits and would create ambiguity about sites set aside for geological values.

- ✓ **If biodiversity is <u>not</u> always a primary purpose: the UN list might include places not recognised as protected areas by the CBD**. A number of powerful stakeholders, including many conservation NGOs, already effectively ignore IUCN categories V and VI, although these categories also have powerful advocates: a stronger definition might in these cases help to persuade dissenters that they have significant conservation value. (Currently some category V and VI areas have proven benefits for biodiversity while in other cases the situation is less clear.) Including broad management approaches that only have biodiversity as a secondary consideration could result in two "lists" of

protected areas that do not correspond. The decision about what is recognised as a protected area would in that case depend on whether the IUCN or CBD definition carried the most weight. If the CBD definition took precedence – which is likely because it is the one that governments have to report against and comes from a legally binding instrument – there is a risk that the broader cultural and social values inherent in the IUCN definition become overshadowed and IUCN would be distanced from the CBD *Programme of Work* that it did so much to create.

This leads to the second main decision required from IUCN:

Decision 2: does the IUCN definition always imply biodiversity is a primary objective of protected areas or not?

■ **What implications does this have for the World Database on Protected Areas?**
Whichever decision is taken, some changes will be needed to the WDPA, which currently contains many errors. If IUCN decides that protected areas should always have biodiversity protection as a priority, the need to clean up the WDPA will grow. There are two options:

- ✓ **Correct WDPA errors and duplications**: this should be the approach in at least a proportion of cases and coordinated action by the whole of the WDPA consortium is needed to achieve greater accuracy. However, more significantly this will also involve making strategic decisions about what is and is not included on the WDPA – for instance with respect to a proportion of category V and VI protected areas, private protected areas, conservancies, wildlife management areas and forest reserves.

- ✓ **Expand the WDPA to include non-protected areas**: the WDPA already includes sites that are not protected areas as recognised by IUCN. One option would be to formalise this by including one or more additional categories *beyond* protected areas, if necessary changing the name to reflect this, with IUCN protected areas as a subset which would make up the *UN List of Protected Areas*. This would mean that the database could be cleaned up without the political embarrassment of informing governments that some sites had been eliminated; they would simply shift to a different field within the WDPA. It would imply a lot more work and may be over-ambitious given the state of the current list. Expansion could focus first on a few management approaches with clear links to conservation (forest reserves, watershed management areas, etc). Sites could move "up" to a protected area category if management objectives were changed: this is underway with some forest reserves in Uganda and Tanzania and the possibility of full protected area status is an important incentive for the agencies involved.

■ **What implications does this have for the social policies of IUCN?**
This debate is about the limitations of what is and is not called a "protected area". It does not affect IUCN's support for many sustainable management policies, such as Community Conserved Areas, sustainably managed forests, organic agriculture, sacred natural sites or watershed protection areas. It does mean that clarity is needed about which of these very valuable areas are also protected areas. While one result of IUCN clarifying its definition of a protected area might be the removal of some existing areas from the list, it could also result in new areas being added including those with different governance types. To some extent it could be argued that this debate is academic and that the precise status of land or water is unimportant so long as it contributes to biodiversity conservation and social values. But with many other issues, including legislation, funding opportunities and responses to international conservation obligations, riding on protected area status, greater clarity is now imperative.

■ **What implications does this have for the equity policies of IUCN?**
IUCN says that all six categories are equally important and this was supported by a resolution at the last World Conservation Congress. But it is important to define what "equal" means here. The social and economic costs of establishing a category I or II protected area – in terms of lost living and agricultural space for instance – are higher than the costs of establishing a category V area where permanent settlements remain and life often carries on much as usual. Any associated benefits from tourist revenue in the stricter reserves seldom trickle down to the communities most affected. Governments and NGOs in the rich countries frequently lobby for strictly protected areas in poor countries while promoting a less rigorous form of protection at home. There are increasing and justifiable complaints about the fact that the poorest countries are paying the most to save the world's biodiversity. The issue of equity as it relates to the IUCN categories is a hitherto almost ignored side of IUCN's work that needs more attention.

■ **What implications does this have for conservation?**

The IUCN definition and categories are tools, intended to help develop effective protected areas rather than restrict innovation. Protected areas are part of a continuum of management responses to multiple challenges, including maintenance of environmental services, biodiversity conservation and sustainable development. Many of the management regimes that are vital components of conservation lie outside protected areas as defined by both IUCN and the CBD. The question of what falls in and outside protected area systems is therefore partly a technical and political question relating to reporting to international instruments such as the CBD. But there is a little more to it than that. Protected areas are primary tools in conservation. Today anyone with access to the internet can go onto GoogleEarth and see for themselves the stark and tiny patches of green reserves in a sea of overused farmland that is the reality of protected areas in many countries. Protected areas carry a huge responsibility, which in most cases cannot be replaced by other management approaches, and it is incumbent on us to assure their effectiveness. The real debate is therefore not just about what "counts" from a pedantic, record-keeping perspective, but about what really works.

■ **Are these the only questions about the IUCN definition?**

By no means: other key issues relate to how the phrase "*effective means*" is interpreted, particularly to protected areas outside the state system (private reserves, Community Conserved Areas etc) and about whether the definition should include some reference to *permanence*. These also form core issues of the task force. This paper aims to address just one important element about the protected area definition.

■ **What needs to happen now?**

A (limited) survey of IUCN members in 2005 found a wide divergence of views about the interpretation of the definition. **IUCN needs to supply clear guidance and leadership in deciding which of the two options is most suitable**.

One of the problems with the definition as it stands is that it tries to encapsulate a whole philosophy and approach to conservation and development into a single short sentence. Whilst the role of the task force is not to change the definition, but one element in clarification could be to include some additional explanatory sentences to amplify particular aspects of this very important definition

In addition, IUCN needs to provide greater clarity about the effectiveness of different management approaches in protected areas. The task force intends to carry out a comparative study of the effectiveness of different IUCN categories, and perhaps other management approaches outside protected areas, at delivering both biological and social targets.

This paper is a personal perspective. An earlier draft benefited from comments from Jessica Brown, Dave Harmon, Bill Jackson, Gonzalo Oviedo, Adrian Phillips and Sue Stolton. It is fair to say that some of these do not agree with some of the conclusions and they are certainly not responsible for any errors or for my opinions…

3.2. What does IUCN's protected area definition actually mean?

Dave Harmon

The following paper was prepared to make some initial proposals about how individual terms within the definition might be interpreted. The IUCN definition is as follows: *An 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.*

A suggested explanation of the individual terms of the definition

"An area of land and/or sea"

- ✓ To qualify as a protected area, an area must have defined boundaries, which can encompass either land, water, or both. "Sea" should be understood to include freshwater.

"especially dedicated"

- ✓ To qualify as a protected area, an area must be formally recognized, either in civil law or by community assent, as being dedicated to conservation purposes.

"protection and maintenance"

- ✓ These terms should be understood to incorporate the full range of conservation activities, from strict nature protection through sustainable use of resources.

"biological diversity"

- ✓ The variety of life, at the genetic, species, and ecosystem levels. The term includes wild biodiversity, and agrobiodiversity as developed through traditional practices, but not GMOs. The term should also be understood as a proxy for other related desirable traits, such as ecological integrity.

"natural and associated cultural resources"

- ✓ Those elements of natural and cultural heritage that are compatible with the protection and maintenance of biological diversity.

"managed"

- ✓ Organized, continuing actions to influence natural systems and human behavior to achieve the protection and maintenance goals of the protected area.

"legal or other effective means"

- ✓ This clause means that protected areas must either be gazetted (that is, recognized under statutory civil law), or else managed through other effective, but non-gazetted, means, such as the traditional rules under which community-conserved areas operate.

A proposal for understanding the definition as a whole

The IUCN definition places biodiversity first in the sentence order, so in that sense it has an implied primacy. However, the sentence continues with the conjunctive "and." This denotes an equality between the first clause (in which biodiversity is mentioned) and the second clause (in which natural and cultural resources are mentioned). In my view all of these elements are co-equal, and, importantly, all are necessary.

If an area is not dedicated to protection and maintenance of all three of these elements — (1) biological diversity (as defined above), (2) those natural resources that are compatible with biological diversity, and (3) those associated cultural resources that are compatible with biological diversity — then it does not qualify as a protected area. So in my view the protection of biological diversity is a necessary component, but not the only necessary component, of what it means to be a protected area.

Note that this interpretation of the definition clearly, and in my view rightly, excludes:

- ✓ Areas primarily managed for natural resources in ways that are not compatible with the protection and maintenance of biological diversity; for example, a USBLM grazing allotment or other area managed primarily for resource production.

- ✓ Areas managed for cultural resources that are not associated with biological diversity or natural resources, even though there may be significant natural resources present (e.g., certain US national historical sites).

I think a numerical threshold that defines "primarily" — such as >50 per cent — needs to be delineated for category VI and possibly category V areas.

This interpretation also means that protected areas are *not* obligated to protect:

- ✓ Natural resources that are *not* compatible with the protection and maintenance of biological diversity, as defined above. An example would be GMOs.

- ✓ Cultural resources that are *not* compatible with the protection and maintenance of biological diversity, as defined above. An example would be a cultural practice that is destructive of biological diversity.

The third clause in the IUCN definition is also joined by the conjunctive "and," which means that it is both necessary and equal in importance to the conditions stated in the first and second clauses. The clause encompasses both officially gazetted and non-gazetted protected areas so long as they are being effectively managed. Here of course we need to apply the emerging principles of evaluating protected area management effectiveness.

A proposed definition of a "protected area system"

A set of protected areas, comprising a combination of two or more protected area categories, whose activities are coordinated to achieve the protection and maintenance of biological diversity, and of natural and associated cultural resources.

A proposed definition of a "fully functional protected area system"

A protected area system that includes examples of all six protected area categories and all four governance types, and that is explicitly designed to protect and maintain the biological diversity and natural and associated cultural resources of a particular political entity (for example, a state/province, country, etc.).

Example: Say a small country has 10 protected areas, 5 of which are government-run, 1 co-managed, and 3 privately, and there is coordination among them (see table 1 below). This would qualify as a protected area system, but would not meet the definition of a "fully functional protected area system." To do that, every square in the matrix would have to be filled with at least one protected area, as in table 2.

You can see that to have a "fully functional protected area system" country would have to have a bare minimum of 24 protected areas. Realistically, it would take many more than that because of duplication. This sets a very high bar for calling a protected area system "fully functional," but I think the bar should be high.

Of course you could establish a continuum from low-to-high functionality depending on how much of the matrix a particular country has filled in.

Table 1: **A "protected area system"**

	Government-managed protected areas	Co-managed protected areas	Private protected areas	Community-Conserved Areas
Ia Strict nature reserve & Ib Wilderness area	**X**			
II National park	**X**			
III Natural monument	**X**		**X**	
IV Habitat/species management area				
V Protected landscape / seascape	**X**	**X**	**X**	
VI Managed resource protected area	**X**		**X**	

Table 2: **A "fully functional protected area system"**

	Government-managed protected areas	**Co-managed protected areas**	**Private protected areas**	**Community-conserved Areas**
Ia Strict nature reserve & Ib Wilderness area	**X**	**X**	**X**	**X**
II National park	**X**	**X**	**X**	**X**
III Natural monument	**X**	**X**	**X**	**X**
IV Habitat/species management area	**X**	**X**	**X**	**X**
V Protected landscape / seascape	**X**	**X**	**X**	**X**
VI Managed resource protected area	**X**	**X**	**X**	**X**

3.3. What do we mean by wild?

Deborah Bird Rose

Indigenous people in many parts of the world object to the term 'wilderness' when it is used to describe or define their homelands. Australia offers an excellent case study. Two issues stand out: exclusion of people, and the wilderness concept. The first issue, exclusion, is currently being resolved through a variety of strategies that include Aboriginal people on conservation zones – joint management, co-management, Indigenous protected areas, and employment agreements are examples.

My concern is with the second issue – the wilderness concept. It is less readily resolved because it involves substantially different paradigms. The positive point of convergence is a shared desire to take care of endangered country and species. The disagreements arise out of different histories, and in settler societies such as Australia, out of the history of conquest and dispossession.

Wilderness, David Brower said jokingly, is a place 'where the hand of man has not yet set foot' (Brower 1978). 'Wilderness' has not always been positively conceptualized in the western world. Agriculturalists tilled the earth, and kept the 'wild' or untamed world at the edges of the fields or beyond the walls of the gardens (Wright 1980). Nation-states contrast themselves with the uncontrolled and wild 'barbarians' or 'savages' beyond the rivers or walls that mark the edge of centrally controlled society. On the other hand, positive evaluations of wilderness also have a long genealogy: in Jewish and Christian thought wilderness can be a place where God's presence is intensely encountered. The modern interest in wilderness is related in complex ways to the conceptual domains of the past, but adds to them a positive evaluation concerning preservation and conservation. Positive values of wilderness include: helping to safeguard biodiversity; maintaining sources of spiritual renewal; opportunities for self-reliant recreation; maintenance of significant opportunities for scientific study in natural ecosystems (Robertson et al 1992).

Settler Australians saw a land that was incredibly foreign to them - 'Trees retained their leaves and shed their bark instead, the swans were black, the eagles white, the bees were stingless, some mammals had pockets, others laid eggs, it was warmest on the hills and coolest in the valleys, even the blackberries were red (Martin circa 1803).' Settlers saw the exotica, but few of them saw or understood that Aboriginal people had invested their labour in the land. In the past few decades there has been a growing research effort to understand Indigenous fire ecology, and increasingly, the evidence from landscape ecology indicates that indigenous people's fire ecology sustained the biodiversity of the Australian continent (Bowman 1998). The implication of this fact is that, as archaeologist Sylvia Hallam put it, 'the land the English settled was not as God made it, it was as the Aborigines made it (Hallam 1978).'

Australia had already been transformed in ways that sustained biodiversity, and it had already been invested with cultural knowledge. It was travelled, known, and named; its places were inscribed in song, dance and design; its histories were told from generation to generation.

A definition of wilderness which excludes the active presence of humanity may suit contemporary people's longing for places of peace, natural beauty, and spiritual presence, uncontaminated by their own culture. But definitions which claim that these landscapes are 'natural' miss the whole point of Aboriginal people's country. Here on this continent, there is no place where the feet of Aboriginal humanity have not preceded those of the settler. Nor is there any place where the country was not once fashioned and kept productive by Aboriginal people's land management practices. There is no place without a history; there is no place that has not been imaginatively grasped through song, dance and design, no place where traditional owners cannot see the imprint of sacred creation.

Australian Aboriginal people's dedication to the living world of which they are a part poses an interesting challenge to the identification and on-going management of protected areas. The IUCN / World Conservation Union, defines protected areas as areas 'of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of the natural and associated cultural resources, and managed through legal or other effective means.' While the definition does not specifically exclude Indigenous people, it sustains the division, and prioritizes the 'natural'

Moreover, many Aboriginal people see a kind of wildness that is completely the opposite of the positive connotations of wilderness. I came to understand this point in a forceful way in 1986 when my teacher Daly Pulkara and I were travelling between communities in the Victoria River District in the Northern Territory. The area has been under pastoral lease for over a century now, and much has changed in that time. The route was familiar to both Daly and me, but we stopped because I wanted to film some of the most spectacular erosion in the Victoria River District. I asked Daly what he called this country. He looked at it long and heavily before he said: "It's the wild. Just the wild".

Daly went on to speak of quiet country — the country in which all the care of generations of people is evident to those who know how to see it. Quiet country stands in contrast to the wild: we were looking at a wilderness, man-made and cattle-made. This 'wild' was a place where the life of the country was falling down into the gullies and washing away with the rains (see also Rose 1996).

As most people are aware, we are in the midst of the 6th major extinction on Earth, and the first one to be caused by a living species. The rate of extinctions of mammals in Central Australia is the highest in the world, and the waves of extinction are on the move. Daly's use of the term wild calls up images of lawlessness – of death running amok, of loss of the integrity of living beings, of waves of suffering that do not really exempt anyone in the long term.

There is for me an invitation here to consider what we really mean when we talk about wilderness. Pat Lowe, author and photographer, quoted the Aboriginal artist Jimmy Pike: 'You call it desert, we call it home' (Lowe 1990). Had Daly been as familiar with the nuances of contemporary English as Jimmy Pike, he might have said something similar: you call it wilderness, we call it quiet country. You think the wild is a place that is free, we think it is running amok.

A similar point was made by David Claudie, a Cape York man whose homeland, Kanju country, is between the Wenlock and Pascoe Rivers. When I visited him two years ago, and camped on the Wenlock River, David told me that he objects to the term 'wild rivers'. He says his rivers are not wild. They have been properly taken care of by generations of his old people. He absolutely does not want them to be designated 'wild'. Here too we see the concept of wild being rendered as that which is outside the law, that which is uncared for, that which is running amok.

The point is clear: in Australia 'nature' is not what you get when you take away people. Flourishing country was what you got when Aboriginal people were at home, taking care of country. Damage is what you get when you take people away, when they're no longer allowed to take care of country, or when they just can't do it anymore. Damage is what you get when you knock the stuffing out of country's ability to be self-repairing and self-renewing. And damage is what you get when you dull your own sense of what flourishing country is really like.

In Aboriginal pastoral English quiet contrasts with the wild – wild is running lawless, quiet is in communication, in relationship. In contexts of cattle and people, it means socialized. In relation to country it may speak to a broader domain of lawfulness. Another term Yarralin people use is *punyu* – this is an encompassing term that speaks to health, happiness, beauty, and lawfulness. The domains of the term *punyu* work back and forth: that which is lawful is healthy and happy, that which is beautiful must be lawful, and so on. The term is as appropriately applied to country as it is to people.

One term that my teachers used when talking about their flourishing country is 'gardens' And they were talking about gardens that are 'for everybody', as people say. Gardens where the benefits flow through many species, and where the recursions of benefits form patterns of emplaced connection that go to the very heart of how the living world really works.

In saying that mutual benefits integrate an ecosystem through dense and recursive connectivities and communications, my argument parallels a more science-oriented set of propositions concerning connectivity, biodiversity, and stability. E.O. Wilson (2002: 108) notes that 'the more species that inhabit an ecosystem … the more productive and stable is the ecosystem'. Indigenous people took care of gardens in which the benefits 'for everyone' ensured high levels of densely entwined and stable diversity.

Indigenous traditions develop worldviews that identify ultimate values. Our 21st century efforts to protect biological and cultural diversity will depend in large part on how well we are able to articulate the non-negotiable value of the connectivity's that sustain life on Earth. Conservation policy that is designed for dialogue with Indigenous knowledge in all its domains, including the critique of the wilderness concept, thus takes significant steps toward a larger goal that may well define our long-term capacity for conservation: the integration of knowledge and wisdom.

3.4. In defence of protected landscapes: A reply to some criticisms of category V protected areas and suggestions for improvement

Josep Maria Mallarach, John Morrison, Ashish Kothari, Fausto Sarmiento, José-Antonio Atauri and Bobby Wishitemi

Summary

This paper discusses some of the main criticisms that category V protected areas has received, while addressing, at the same time, the "new paradigm" for protected areas, the challenges it creates for biodiversity conservation, and suggesting an alternative solution. It argues the need and significance of category V protected areas in many regions of the world, as the most suitable, or even the only existing option for protecting biodiversity. Wherever it has been measured, the effectiveness of category V in conserving biodiversity seems not to be lower than other categories. It also stresses the risks of throwing out categories V and VI from the network of protected areas, as some critics have suggested, namely removing legitimate biodiversity protected areas, alienating large constituencies, and weakening national and international legal, policy, and financial backing and attention to some of the most important biodiverse areas on Earth. Finally, it discusses the possibility of developing resolution into this category by adding non-exclusive subcategories which would allow to see the various functions that category V protected areas are performing, other than vital biodiversity protection functions.

Purpose

Category V (Protected Landscapes) of IUCN's categorization of protected areas has received several criticisms since its formal adoption in 1992. This paper deals with the criticisms presented by the recent paper "Rethinking protected area categories and the new paradigm" by Locke and Dearden (2005). We chose it because of its strong argumentation outweighs all the previous critical remarks that category V received. Criticisms presented by Locke and Dearden are bold, indeed, addressing the very *raison d'être* of this category. The authors contend that "only IUCN categories I-IV should be recognized as protected areas" (while) categories V and VI should be reclassified as "sustainable development areas". They consider that these two categories are a 'distraction' and a crucial component of the "new paradigm" described by Phillips (2003), which they strongly oppose. The goal of this paper is to discuss the main specific criticisms related to category V protected areas. We also attempt to address the "new paradigm," acknowledge the challenge that this paradigm represents to biodiversity conservation, and suggest an alternative solution.

The new paradigm and category V protected areas

Although category V as Protected Landscape started in 1978, the current six categories of protected areas were officially endorsed in 1992 (IVth World Park Congress, Caracas) and two years later the IUCN General Assembly approved the system. The Guidelines for Protected Area Management Categories were published in 1994 by IUCN and the World Conservation Monitoring Centre (IUCN and WCMC 1994).

Locke and Dearden state that category V "was created to deal with an anomaly, the English national park system, which did not fit well into the categories I-IV" although they acknowledge that the English National Parks 'narrowly meet the mark' to be considered protected areas. However, the IUCN WCPA Action Plan of Protected Areas of Europe (IUCN and CNPPA 1994) provided evidence that category V protected areas amount for almost 67 per cent of the about 20.000 European protected areas. That is, it was estimated that category V, far from being an English anomaly, encompassed in the year of its official adoption about two thirds of all European protected areas. At the global level, according to Chape et al (2003) protected areas under categories V and VI combined cover about 3,6 per cent of the globe surface, i.e. an area greater than categories II and III combined. category V alone covers a larger surface than categories Ia, Ib and III combined. The 26 case studies discussed in the category V Guidelines (Phillips 2002) come from four continents, including a large variety of settings and management practices found both in developed and developing countries. Similarly,

the "Protected landscape approach" documents 10 relevant case studies from around the world, most of which have being conserving biodiversity in effective ways for centuries (Brown et al 2005). Therefore, there is sound evidence that category V was created and applied to acknowledge a reality: the existence of a large number of protected areas, already established in many countries of the world, which did not fit under the four previous categories.

After the Recommendations of World Parks Congress of Durban (IUCN 2003), and the adoption of a Programme of Work on Protected Areas -legally binding on all member countries- under the Convention on Biological Diversity at Kuala Lumpur (2004), the significance of this category is even greater than before. This is because the outcomes of both these meetings, in which thousands of conservationists participated, recognized multiple governance forms of protected areas, including not only government managed but also collaboratively managed protected areas (CMPAs), community conserved areas (CCAs) and private protected areas (PPAs) (see IUCN 2003, and CBD 2004). Many such areas, with significant biodiversity and wildlife conservation value, would fit into categories V or VI (Borrini-Feyerabend et al 2004; Kothari 2006). Clearly, category V protected areas are going to be a significant portion of the global protected area network, as governments start implementing the CBD Programme of Work.

The new paradigm that concerns Locke and Dearden, and which is typical of category V, involves protected areas that include more of a people-focus. We can think of many possible reasons why this category has proven to be so popular. One is the desire of local peoples to have their traditional practices recognized, for cultural, ecological, political, scenic or historical preservation purposes. Also the misuse of categories I and II, creating severe social injustices, in many countries, such as in central Africa (Cernea & Schmidt-Soltau 2003) which explains that in many parts of the world is almost impossible, right now, to propose new categories I or II protected areas (Okello *et al 2003;* Wishitemi and Okello 2003). On the scientific arena, the emergence and recognition of the nature in flux and the ecosystem management paradigms, both based on the idea of nature in flux, rather than balance, and a view of people within, rather than separate from, nature, has provided a new, more inclusive, approach in contrast with earlier preservation ideas (Kalamandeen & Gillson, 2007). Some of these reasons do seem to represent a drift away from the traditional role of protected areas to only conserve "wild" biodiversity. However, to respond to Locke & Dearden's concern, there are three additional reasons that they may need to be more sympathetic to category V protected areas:

1. In many geographies, human dominated landscapes are in fact the only option to conserve certain aspects of biodiversity, including "wild" biodiversity, because in many parts of the world virtually all areas are already heavily influenced by humans
2. Human management is required to preserve certain habitats in certain regions, including habitats for "wild" biodiversity and many endangered or threatened species
3. Many category V protected areas are as effective as the other categories in protecting biodiversity.

To this first point, the most biodiverse countries of Europe are in the Mediterranean, where worked landscapes have dominated for two to eight millennia, from the coastal areas to the highest mountains (McNeill 1992, Conservation International, 2007). Not surprisingly, most northern Mediterranean countries, such as France, Greece, Italy or Spain, include even a larger than average proportion of category V protected areas. In Spain, for instance, it is considered that category V includes the vast majority of 'Natural Parks' which represent over 70 per cent of all the existing protected areas (Europarc-España, 2006) . In some of the most biodiverse Spanish Autonomous Communities, such as Catalonia, category V type reaches over 90 per cent of the protected areas system (Mallarach 2006).

Locke and Dearden imply that only categories I to IV can protect the full array of biodiversity, especially large carnivores. However, category V can and does also play a vital part. To follow with the example of Spain, this country currently has the largest populations of both brown bear (*Ursus arctos*) and wolf (*Canis lupus*) of Western Europe, both of them expanding. Most populations for both species are found in category V protected areas, while they are lacking in most protected areas of categories I-IV. For instance, in Somiedo Natural Park (Asturias), the heart of the Cantabric brown bear population, brown bear habitat is found in mountain valleys with working landscapes that have a history of over 25 centuries of continuous human activity; brown bears are living close to the villages and farms and cattle and people feel proud of that, as shown by the motto of this mountains: "*País de Osos"* (Bear Country) (Nores & Naves 2004).

Some examples of heartlands of Africa which are based on IUCN category V include mainly conservation areas

adjacent to the Greater Virungas of Rwanda and Democratic Republic of Congo. Other examples include Laikipia/Samburu conservation areas of Central Kenya and Amboseli/Longido on the Kenyan Tanzania border (Wishitemi & Okello 2003; Okello et al 2003).

To the second point, Locke and Dearden consider the category V Guidelines (Phillips 2002) statement that that "the protection of the landscapes puts people at the heart of the operation –and indeed requires them to be there" to be 'problematic'. They assert that the very purpose of protected areas is the protection of wild biodiversity, implying that this is contradictory to having people living in protected areas. They also argue that this new paradigm ignores the findings of conservation biology. However landscape ecology has shown strong scientific evidence of the crucial role of heterogeneous–managed-landscapes in maintaining biodiversity (Rescia et al 1994; Farina 1995; Böhning-Gaese 1997; Pino *et al* 2000; Atauri & de Lucio 2001). In many parts of the world, (e.g. Northern Europe, Middle East and the Mediterranean), where the natural environment has been greatly modified by human activities, these heterogeneous landscapes are complex mosaics of natural and semi-natural ecosystems under different management regimes, which are vital to the maintenance of biodiversity (Wishitemi & Okello 2003; Farina, 1997; González Bernáldez 1992; Richardson & Cowling 1993; Antrop 1993) and often the only option to protect the habitat of species at the brink of extinction, such us the Iberian Lynx (Aerts & Van Heijnbergen 2006).

A good example of this is the European Natura 2000 network, one of the largest and more ambitious international conservation strategies based on an eco-regional scientific approach. A large number of threatened or endangered birds of Europe depend on grazed steppe or extensive cereal field habitats; (Omerod & Watkinson 2000). Therefore, Natura 2000 includes Special Protection Areas (SPA) classified under the European Birds Directive of 1979 to help protect and manage areas which are important for rare and vulnerable birds because they use them for breeding, feeding, wintering or migration. In particular, the Spanish network of Special Protection Areas for birds (SPA) includes 480 sites covering a total of 8,379,733 hectares, i.e. 16.59 per cent of the country (data from December 2004) many of them being agricultural landscapes. Although managed, these landscapes are habitat of a number of endangered wild species, and their conservation depends on the maintenance of agricultural practices (Suárez et al 1997). No wonder if SPA are considered important components of the protected area systems of most European countries. It is documented that the abandonment of the pastoral or agricultural practices will lead to a habitat changes producing species extinction (Donald et al 2001; Baucells et al 2004). Indeed, it has been shown that in many Mediterranean countries a large proportion of endangered and threatened species are mostly dependent on extensive agro-forest mosaic landscapes outside protected areas, requiring management (Pino et al 2000; Santos et al 2007).

Another good example comes from the tropical mountains of South America, where the astonishing numbers of species gives Ecuador the condition of mega diverse country. It is argued that highland grasslands show endured management of Andean forest over millennia, particularly through the use of fire. Most plants and animal species of the Páramos are pyrophytic and serotonic, requiring the continual human driver of burning for their existence (Sarmiento 2002).

In view of these facts, is it only logical that many management plans and budgets of category V protected areas of Europe are actively supporting extensive agro-pastoral practices, which are not economically viable anymore, trying to slow down or to stop the decline of rural people and rural extensive systems both within and around protected areas, for they are needed to maintain critical components of biodiversity (Vickery et al 2004). The role of agricultural landscapes as suppliers of environmental goods and services is essential (Baudry 1989; Burel 1995), as is their value in terms of cultural and natural heritage (Meeus 1995).

Similarly in many wetland ecosystems, human use appears to be necessary to maintain the wetland character and thereby protect species typical of such habitats. A classic case of not recognizing this and paying the price is that of the world-famous Keoladeo Ghana National Park (more popularly known as Bharatpur) in western India. In 1982, upon conversion of the area from a Wildlife Sanctuary (category IV) to a National Park (category II) status, buffalo grazing that had been traditionally permitted in the wetland was abruptly stopped (leading to a clash between villagers and the police in which 7 villagers were killed). A long term study by the Bombay Natural History Society showed that the result was a tendency of the ecosystem to turn more into grassland, as also change in composition of the grasses, which was having an adverse impact on several waterfowl and other wetland species (Vijayan 1991). Unfortunately the law did not

permit restarting of grazing, so instead, a high level of grass cutting was encouraged. Either way, intensive human use of the area was found necessary. In the same vein, in many diverse wetlands, including a number of RAMSAR sites, all around the Mediterranean basin, spanning three continents (Africa, Asia and Europe) a vast array of cultural practices and cultural elements inspired in nature has been documented, sometimes with several thousands of years of truly sustainable practices, without serious loss of biodiversity until very recently, when mass tourism has had negative impacts (Papayannis 2005).

To the third point, effectiveness of protected areas is a key aspect that criticisms avoid discussing. In fact, many category V protected areas are designated for protection of biodiversity and/or landscape diversity. They have similar planning and management instruments as I to IV protected areas, a dedicated administrative structure, human and material resources, and a wide experience in management of species, ecosystems and landscapes. Category V areas have (or should have) specific legal and technical tools, as well as human resources, particularly designed to reach the primary objective of nature conservation. They have (or should have) mechanisms to monitor and evaluate the effectiveness of management and the degree of fulfilment of such objective. Other sustainably managed landscapes -not designated as protected areas- do not have as primary objective the conservation of biodiversity, nor all those mechanisms. One of the few performance evaluation of an entire protected area system including I to V categories in Europe was done for Catalonia, Spain, in 2004, by the Institució Catalana d'Història Natural, an independent scientific organization. This study, involving over one hundred scientists and 145 protected areas, did not find differences of performance between V and I to IV categories, the main correlations being identified between the number and degree of pressures and impacts that protected areas were under (Mallarach 2006).

Finally, as already mentioned above, a number of CCAs and PPAs that have considerable biodiversity value, and deserve to be in their respective national protected area systems, would be category V type. A recent compilation of the range and status of CCAs in several regions of the world demonstrates this (*Parks*, Vol. 16 Issue 1, 2006). Such areas include sacred sites or sacred landscapes with multiple land uses, grazing territories of nomadic peoples and communities, territories of indigenous peoples under various kinds of use, wetland and grassland ecosystems, catchment forests and forests conserved for resource harvesting for homestead consumption, and so on (TILCEPA 2004; Kothari, 2006). These are conserved and managed for a variety of reasons, from cultural and spiritual association (Dudley et al 2005) to economic welfare and security, to political empowerment and the assertion of identity. And in many cases they have been effectively conserving biodiversity for centuries (UNESCO-MAB, 2006).

The challenge of the new paradigm

We do not dispute the idea that some elements of biodiversity need little to no human influence to thrive, and that where possible, strict or elevated protection of the least degraded habitats should be achieved. In fact, we will go so far as to say that categories V and VI protected areas should not substitute categories I - IV in the context of biodiversity protection, when options for the latter exist; indeed, as a general rule, no category that is the most appropriate and feasible in a particular context should be substituted by another one simply for reasons of political or economic expediency. Wilderness, where it exists, should also be protected where possible, since the presence of naturally occurring ecological processes in these areas are most likely to be resilient in the face of increasing disturbance, both natural and otherwise, and thus more likely to conserve dynamic biodiversity. However, we have to admit that the very concept of wilderness is absent from many cultures and languages, from most indigenous people to Latin languages (Ohlgren & Berk 1995; Turner 2002). Not only that the word "wilderness" is capriciously used by the specific political ecology of American frontiersmen, but the "myth" of the pristine that it perpetuates, has been long debunked in geographical and ecological literature (Denevan 1992; Cronon 1995), even as new debates have highlighted the theoretically flawed trouble with the "new" wilderness concept (Callicot & Nelson 1998; Rose, 2007).

The above arguments notwithstanding, it does seem that there has been a shift from the concept of protected areas as a tool for conserving "wild" biodiversity to a more inclusive model that also protects human values, including domesticated biodiversity, which is often under threat. Whatever the original motivation, however, the result of the rapid growth in categories V and VI in forms that sometimes do not clearly emphasize the conservation of wildlife, does hold the potential to dilute the original value and purpose of protected areas – especially in the context of the Convention for Biological Diversity (CBD), since this instrument asks that nations to conserve a threshold (currently 10 per cent) of their land area in protected areas. Thus Locke and Dearden highlight a

real problem, as countries are sometimes preferentially choosing to gazette category V and VI protected areas because it is more politically expedient to do so (Bishop et al 2004). This, they point out, is artificially inflating protected area figures, with no necessarily added biodiversity value. Additionally, they point to the fact that some governments are abusing category V by declaring areas with very little or no wildlife value as protected areas, and/or by subjecting such areas to commercial exploitation and developmental activities.

We recognize that some category V protected areas are indeed problematic from all these perspectives. However, it is fallacious to conclude, from evidence of the *abuse* of a category of protected areas, that the category itself is faulty. For there is plenty of evidence of similar abuses of various kinds that categories I to IV are subject to. In India, for instance, some "national parks" (legally, akin to category II), are no more than zoos or degraded scrublands, and a huge number of "wildlife sanctuaries" (legally, category IV), contain dozens (in some cases, hundreds!) of human settlements inside with intense resources use taking place. A recent survey showed that several dozen of these protected areas were subjected to mining inside or adjacent to them, and the Indian government has not hesitated to degazette or reduce in size many more protected areas to make way for roads, dams, and industries (Vagholikar 2003; Kutty & Kothari 2001). Just as this kind of abuse does not undermine the concept of categories I to IV, we submit that the abuse of category V should not be a reason to throw it out.

The need of evaluation the effectiveness of category V is out of question. But the same is applicable to the rest of categories. There is no evidence that preservation of large areas without human intervention in category I to IV protected areas are being more effective in protecting biodiversity that category V are.

Is there, then, a way to embrace the new paradigms of protected areas without diluting either the objective of biodiversity and wildlife conservation or the push for more strictly human-free protected areas?

An alternative solution

Locke and Dearden suggest that categories V and VI be downgraded to "sustainable development areas" so as not to be confused with protected areas intended to protect "wild" biodiversity. While the intention could seem reasonable, and we agree that "careful scrutiny is needed.." we have several concerns with this proposal.

Our first concern is that the Locke and Dearden proposal throws the baby out with bathwater – there are many category V protected areas legitimately protecting "wild" biodiversity in human-dominated landscapes where there are no other options. In fact, in many of these protected areas some of the human activities are required in order to maintain habitats for wild species. A conversion of such areas into "sustainable development" sites would risk loss of a focus on wildlife, which they currently enjoy; this is especially true given that the term "sustainable development" itself is open to a whole lot of dubious interpretations including substantial industrial scale exploitation.

The next is that such a move would most certainly be opposed by large, influential, and legitimate constituencies. If the suggestion of dropping category V sites from protected areas was to be accepted, almost entire systems of protected areas in many regions and countries of the world would vanish overnight. This includes a large proportion of both the European Natura 2000 and Emeralds networks, which have been built over decades of concerted efforts among scientists, policymakers, environmentalists, farmers, foresters, and many social sectors, providing effective protection for a vast number of landscapes, habitats and species. It is worth recalling that the European Union has been one of the few international political authorities in the world to adopt a resolution calling from stopping the losses of biodiversity by the year 2010 (Duke 2005).

Third, such a move would mean the loss of support and legal backing that is currently provided to such areas under national laws and policies, and under the Programme of Work on Protected Areas of the Convention for Biological Diversity. Inevitably, that would mean less protection for wildlife in such areas.

It seems that three things are needed to address Locke and Dearden's criticisms and at the same time acknowledge the broad use of the concept of protected area:

1. Develop a more generic framework for protected areas that encompasses all kinds of ways of conserving wildlife and biodiversity; Only those sites where the main goal or outcome is biodiversity conservation, should be considered protected areas. Note that this would include many sites which can have other goals, as well, at the same level, such as cultural or spiritual, but in case of conflict, nature conservation has to be the priority.

2. Develop more specific category V (and VI) subcategories that allow clear identification of

which protected areas are conserving biodiversity that would not otherwise be conserved (e.g. Va - biodiversity protected where no other options exist, Vb – significant cultural values along with biodiversity values, Vc – maintains scenic pastoral landscape with significant biodiversity values, etc.). These same additional subcategories could also be used for others' purposes to indicate which category V's contain which cultural, historical or other values. Obviously, since the category V protected areas (though this is not exclusive to category V) can contain more than one value, the subcategories would not be exclusive.

3. Develop a means to identify, expose, and advocate against the misuse of any of the categories of the protected area system, e.g. to artificially inflate the protected area figures, or use of any one category as a proxy for the others.

This sub-categorization would allow conservation planners, as well as the Convention for Biological Diversity and researchers, to distinguish among category V protected areas in order to more accurately account for how much biodiversity is being conserved. This is currently not possible and the reason why some researchers simply leave out categories V-VI in their analyses (Rodríguez *et al* 2004).

Of course, the remaining task would be to tighten the language of the Convention for Biological Diversity, in order to restrict the protected areas eligible to meet the 10 per cent threshold to those intended for or actually achieving the preservation of biodiversity. However, this task would be necessary anyway, given the current situation, and rather than throwing out categories V and VI (and creating a very negative dynamic), this solution would introduce needed resolution in the categories while retaining those category V and VI protected areas that really are protecting biodiversity.

To briefly also respond to Locke and Dearden's criticism of the inclusion of agrobiodiversity as an objective for protected areas, we submit that there is nothing wrong in this objective, provided it is not clashing with the objective of 'wild' biodiversity conservation. In many countries agrodiversity is under much serious threat than wild biodiversity. Many category V protected areas indeed are intended to do both, or are intended for one but also effectively helping achieve the other, and we do not see any reason to think that this would *necessarily* undermine the potential of protected areas to achieve wildlife conservation[6]. Once again, one has to guard against misuse, but not question the category because of this abuse.

Finally, we would stress that a more inclusive system of protected area categories seems the only way that in many countries protected areas would be politically acceptable in todays' context. Exclusionary policies and practices of protected area management have alienated and dispossessed millions of people, to the extent that protected areas in many developing countries are seen with widespread hostility and declining political support (McKay 2002; Wishitemi & Okello 2003, Okello et al 2003. Demonstrating that protected areas are also vehicles for poverty reduction and sensitive development, *while ensuring that the biodiversity conservation values of individual protected areas and of the protected area system as a whole are not compromised,* appears to be a crucially important way forward. Category V protected areas are well suited for projecting this kind of image of protected areas, and the increasing political support this could achieve would help, rather than hinder, the maintenance and creation of more strictly protected areas too. We submit that this could also be a means by which to regain donor support; Locke and Dearden rightly point out that such support for protected areas may be declining, but our assessment, based on a number of evidences, is that this is not because of the shift towards a "new social approach", but more because conventional models of protected areas are seen, in many countries, and with some justification, as being anti-people (Cernea & Schmidt-Soltau 2003; Okello et al 2003; Wishitemi & Okello 2003), and that indeed an emphasis on a wide range of categories including those clearly helping to achieve poverty reduction and livelihood enhancement, would help regain donor interest in protected areas as a whole.

Conclusions

- ✓ Category V was not created to deal with an anomaly, as it has been argued, but to acknowledge the widespread existence of protected areas, often very effective, found in five continents, of a type that did not fit with I to IV categories. In the European continent category V includes about two third of the total protected areas, and in some of the most biodiverse biomes of the word, such as the Mediterranean basin, category V protected areas can reach over 80 per cent of all protected areas, including a large variety

[6] Several members of the Protected Landscapes Task Force of WCPA are bringing out a series of publications highlighting the different values and benefits of Category V protected areas, the first volume being on the conservation of agrobiodiversity. Contact: Jessica Brown, (jbrown@qlf.org).

of working landscapes and seascapes, where some of the key protected wild species or habitats of these countries biodiversity are found. Many of these category V protected areas are protecting wild biodiversity that would not otherwise be protected.

- ✓ Categories V and VI should not be seen as opposing categories I to IV, but as complementary, as it has been clearly stated and demonstrated in all the relevant documents concerning category V. Even if in a number of countries categories I to IV can only account for a very limited proportion of its protected area systems, nobody denies that these categories perform valuable functions and have significant intrinsic value.

- ✓ The application of the WCPA framework for assessing protected areas management effectiveness in different geographical regions has shown that category V is not less effective than categories I to IV in conserving biodiversity.

- ✓ There is a recognized danger that countries could use category V (and VI) to meet the Convention for Biological Diversity thresholds for protection only because it is often the most politically expedient way to increase the coverage of protected areas. This needs to be monitored, exposed, and lobbied against, while ensuring that a genuinely motivated spread of all feasible categories including categories V and VI is encouraged.

- ✓ Throwing out categories V and VI from the network of protected areas, even by converting them to sustainable development areas, risks removing legitimate biodiversity protected areas, alienating large constituencies, and weakening national and international legal/policy/financial backing and attention to some of the most important biodiverse areas on Earth.

- ✓ A more constructive solution would appear to be to develop resolution to the category V system by adding non-exclusive subcategories which would allow to see exactly which category V protected areas are actually performing vital biodiversity protection functions that would not otherwise be possible. Other interests would simultaneously be able to see what other functions these protected areas were fulfilling.

- ✓ One can imagine that a similar effort might be helpful for category VI protected areas, which often include highly protected inclusions of extreme biodiversity importance.

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3.5. From management objectives to biodiversity objectives

Luigi Boitani and Carlo Rondinini

Introductory comments on the structure and rationale of the current system

The report "Speaking a Common Language" (SaCL) confirmed the general validity of the framework offered by the IUCN Protected Areas category system, but it also highlighted several problems in its implementation and use, especially in its application in certain biomes, notably forest and marine, and in understanding and using the categories in national reporting.

The report also highlighted that the system is increasingly used in many new ways such as:

- ✓ determining appropriate and inappropriate activities in protected areas (for example, mining);
- ✓ establishing criteria to assess management effectiveness;
- ✓ advocacy in relation to protected areas;
- ✓ providing a framework for national protected area legislation and policy and for international agreements;
- ✓ the provision of quality standards;
- ✓ as a tool for broad, systematic landscape-level planning.

The report concludes that "… the rules for categorisation are not always understood. The methods used to assign protected areas to categories must be clearer. There is confusion between a system of categorisation based on management objectives and the reality on the ground, which is a measure of the effectiveness of their management. …. And some think that the system favours an out-dated view of protected areas as stand alone 'islands'."

The SaCL report and the WCPA Categories Summit provide the opportunity to open a discussion on the effectiveness of the current category system to address the needs of biodiversity conservation, and many welcome this opportunity. In response to RESWCC3.048, the current revision of the guidelines for the application of the protected area category system is not intended to change the current category system but only to redefine the objectives by which the categories are assigned and used, providing improved guidance for their use. In contributing to the process to revise the guidelines, it is essential to assess the capacity of the current category system to take full account of the issues of biodiversity conservation and to adjust these in whatever ways possible to accommodate the current body of knowledge on species and ecosystems.

In spite of their obvious shortcomings, protected areas have a primary role in our current tools to conserve biodiversity. Particularly for species, which are central to most efforts to conserve biodiversity, protected areas are one of the most powerful, and often the only available conservation tool. IUCN's definition of a protected area is "*an 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*", thus confirming that biodiversity conservation is the fundamental goal of the protected areas classified by IUCN. Other types of protected areas, such as historical parks, monuments, sacred sites, tribal reservations, etc., that have no content related to the conservation of nature or natural resources in any of its manifestations (see below), while of the utmost importance, need not necessarily fall under the umbrella of the IUCN protected area categories.

However, while the concept of biodiversity conservation is the prime basis for establishing protected areas for nature conservation, the current category system and the guidelines for its application do not appear to reflect the complex articulation of the biodiversity concept; in view of the recent development of ecological theories and the substantial contributions of conservation biology, the relationship between the categories of protected areas and the various notions of biodiversity conservation appears to need an extensive revision.

In this document, we discuss the specific roles that we see the different IUCN categories contributing to the conservation of species and the modifications in interpretation or guidance to these categories that could help increase their effectiveness. In particular, we take a two-pronged approach to respond to the opportunity of the Summit: 1) presenting a

substantially new paradigm for the protected area category system, which is based on the conservation of biodiversity in all its manifestations - species, groups of species, functioning ecosystems, ecosystem goods and services, etc. and 2) making the best of the current situation and contributing to a revision of the guidelines to make their application more meaningful.

Suggestions for revising the protected area category system – not just the guidelines for application of the current categories

The IUCN definition of protected area makes explicit reference to biological diversity as a broad concept encompassing all natural ecological systems, their elements and their evolutionary and ecological dynamics. The current category system does not use the general concept but uses some of its components and meanings too loosely and sometimes interchangeably in the definition of the various categories (e.g. species, ecological functionality, ecological processes, genetic resources and many others). As conserving the valued aspects of biodiversity is the fundamental justification for most protected areas, it is of paramount importance that the concept is defined clearly and applied consistently throughout the system and within the various categories.

The concept of biodiversity includes the structural elements, such as genes, species, communities and ecosystems (and landscapes), and the ecological processes that link all elements in a dynamic and ever-changing state. The interaction of the structural elements within their ecological complexes produces ecosystem goods, including renewable resources (e.g. foods, fibres, medicines, wood, etc.) and the ecosystem services (e.g. clean air and water, climate regulation, nutrient cycling, etc.) on which we depend.

While the concept of biodiversity is extremely powerful to put conservation action in the proper context, it is also very difficult to master when conservation action needs to be implemented. Moreover, as biodiversity elements and ecological processes occur at a great variety of spatial and temporal scales, conservation action is inevitably limited to just a few of the elements or the processes. Thus, conservation approaches tend to focus on some of the structural elements, namely species and ecosystems, or on maintaining some of the processes that produce ecosystem services.

However, when the protected area approach is applied, the different conservation targets often narrow substantially. In fact, among all biodiversity elements and processes, species stand out as the most practical target for conservation action. Species are discrete, easily identifiable units, their populations can be counted, their distribution mapped, their habitat and communities described and identified (i.e. habitat types and ecosystems). As species contain the genetic diversity and form the community and ecosystem diversity, they are central to all structural elements. Species are also the necessary components of ecological processes: healthy species communities ensure functional processes and there are no ecological processes without species. Species have a complex set of values over and above of their functional roles, including ethical, cultural, aesthetic, and recreational values in most human cultures. Conservation success with regard to species is generally much easier to assess and measure compared to ecological processes that are often difficult to manage and evaluate in practice.

In short, species are the most common (though not the only) currency for all structural and functional biodiversity manifestations and values and this is the main justification for adopting species as one of the most practical surrogates for implementing the required actions and measuring the success of biodiversity conservation. Species threatened with extinction are an increasing proportion of all species and in many cases deserve priority action; however, their conservation alone does not substitute for nor exhaust the needs for all species which constitute by far the greater part of biodiversity.

Our concern extends to all species and this is the conceptual context of our contribution to the IUCN/WCPA category system debate. We argue that, for the practical purpose of implementing a category system that is both easy to apply and comprehensive in its conservation goals, species should be considered as the central and most measurable target of protected areas for biodiversity conservation. A number of general attributes have been associated with species and could be effectively adopted as explicit conservation targets: phylogenetic uniqueness, vulnerability, irreplaceability, richness/diversity, and ecological integrity are just some of the most common. These attributes could be used to give substance and precision to the objectives of the categories of protected areas.

Logically following on from these remarks, we argue that the current category system suffers from a number of weaknesses, which could be strengthened in the following ways:

a. Relate the objectives of the categories to defined conservation objectives

The current system is based on management objectives instead of conservation objectives. In other words, protected areas are classified in relation to the management regimes that are to be implemented in the areas, not in relation to the biodiversity values or attributes that are to be conserved.

This appears to be inconsistent with the conceptual meaning of at least three types of protected areas:

- ✓ I Strict nature reserve/Wilderness area
- ✓ II National Park
- ✓ IV Habitat/Species Management Area

For these types of areas, management is explicitly aimed at preserving, maintaining, and sustainably using the components of biodiversity (i.e. species and their role in keeping ecosystems functioning). Therefore, these protected areas are primarily tools for biodiversity conservation and it should be obvious that their categories should be based on the quality and quantity of the contribution of each protected area to explicit biodiversity conservation goals. The current system focuses on the ways the objectives are to be reached (i.e. the management tools and regimes) but fails to articulate the quality and quantity of the conservation objectives to be reached, how they will be maintained over time and how achievement of these objectives will be measured.

In the context of a modern logical framework approach, the management objectives, as currently defined, are articulated as broad mission statements rather than well-defined goals and precise, measurable objectives. The goals and objectives of a protected area should not be stated in terms of general functions or steps in a process but rather in terms of expected outcomes of those functions or steps, and in this way their contributions could be monitored and evaluated far more effectively.

This is particularly evident for two current objectives: "Preservation of species and genetic diversity" which is a priority management objective for 5 out of 7 (including Ib), of the categories of protected areas, and "Maintenance of environmental services" which is a priority management objective for 4 out of 7 of the categories. Both objectives are used to qualify an area whose management is aimed at preserving species but, in the absence of an explicit reference to biodiversity elements or processes, which articulate the values and attributes to be preserved and a quantification of the expected results, these objectives remain imprecise and fuzzy. The vagueness and generality of these "management objectives" is, in our opinion, among the main reasons for the weaknesses and both underpin the many misapplications of the system, while undermining their potential value.

The system should be deeply revised to reflect more accurately the role of protected areas as one of the most powerful tools in modern conservation biology and to allow the ranking of each area, regardless of its category, on the basis of its effectiveness in conserving explicit elements and processes. Perhaps it is timely to return to the basic fact that "protected areas" are protected because there is something to be protected and which is the priority for management; and there are three basic "things" that may be in need of protection: species or groupings of species (and the ecosystems they form and maintain), particular landscape features and specific cultural/traditional features associated with natural elements and processes. These three types of targets should be priority reasons for establishing (and therefore managing and maintaining) a protected area that has a significance for conservation, per se, and hence an interest for the IUCN system. Enhancing tourism, improving environmental awareness, expanding scientific research and sustainably utilising natural resources may all be desired management objectives to be met by protected areas but are necessarily subordinated to the primary goals as a result of their innate dependency on the values and attributes of biodiversity being conserved in any given protected area or network of protected areas. The table with the matrix of management objectives for the categories should be revised accordingly.

b. Define what individual protected areas contribute to networks and systems of protected areas

The current system conveys a concept of protected areas as entities whose goals, roles and management focus on their contribution to representativeness, or individual features, patterns and processes that are entirely internal to these same protected areas. However, the most elementary experience of protected area managers and the scientific information from conservation biology clearly point to the need to consider each protected area in the context of its own environmental, social and political landscape. Depending on this context a protected area can have very different impact on biodiversity conservation.

If the effectiveness of a protected area is defined by the objectives that it can achieve, including the threats is can mitigate, then its IUCN category does not

depend only on the management inside the protected area, but also on the context in which the protected area exists.

For example, a protected area of a given size and shape and managed in a certain way may counteract threats in one context but cannot counteract the same threats in another context. For example, a protected area that encompasses the sources and the upper portion of a river basin can protect riverine species from downstream pollution. Another protected area, of the same size and management capacity, which is further downstream, can not. Rationally speaking, they should be assigned to different categories to reflect their different roles in mitigating threats.

Again, depending on the feature that is the target of conservation (e.g. species, habitat types, ecological processes, cultural values, etc.) each area may be categorized on the basis of its potential contribution to the conservation of that feature. For example, it could be categorized on the basis of its irreplaceability value, a measure of how unique the individual area is to reaching a specified conservation target. The concept of irreplaceability is one of the most powerful in conservation biology, contributing to the identification of the optimal system of protected areas and also, indirectly, to assessing each protected area's importance to the overall conservation goal.

Clearly, this approach goes in the direction of refining the ways that protected areas are used for conservation by articulating the specific contribution(s) of individual protected areas to networks or systems of protected areas, which should be the real target of conservation planning. It is likely that new categories will be necessary to define the combined objectives of individual protected areas into protected area networks within larger landscapes. At present, many areas are set aside to support species hoping that their contribution will be matched by other conservation areas or measures elsewhere: it is necessary to avoid this fundamental pitfall by redefining the role of each area within a larger goal of effective biodiversity conservation where protected areas operate in full synergy with the surrounding matrix of land uses. This will be necessary to ensure that protected areas are, in fact, effective tools for conserving biodiversity.

In addition to this and wherever possible, protected areas should be enshrined in a systematic conservation planning approach and assessed for their role and contribution to the entire system including areas of alternative land use, such as production landscapes, which are not managed with the primary objective of conserving biodiversity elements and processes but which may nonetheless contribute to counteracting threats to these values and attributes. For a long time the need has been advocated of conservation strategies that are not limited to the establishment of protected areas, but include other production landscapes that are managed in a way that can mainstream the conservation of at least some biodiversity elements and processes. This requires taking these considerations into their planning and management as well. An IUCN classification of these areas, which incorporates and expands on some of the elements of the current category system (e.g. categories V and VI), could acknowledge the contribution to biodiversity conservation of areas in the surrounding production landscapes, which will always comprise far greater area on the ground. This would be a major step towards recognising and practicing more comprehensive and systematic conservation planning at the landscape level.

This vision would also help tremendously in placing protected areas in the context of the full array of other conservation tools and would relieve the pressure on them as stand alone "bastions" for biodiversity conservation.

c. Articulate and define the ecological terms and concepts invoked when categorizing

Given the IUCN definition of a Protected Area (see page 1), biodiversity conservation (be it species, communities, ecosystems or the provision of goods and services) is central to all protected area categories. Yet biodiversity conservation, per se, remains ill-defined in terms of exactly what it implies for the establishment and management of protected areas. The fact that it is a vague expression allows the establishment of many protected areas claiming to have this goal and yet ultimately doing very little towards achieving it.

Currently, the IUCN protected area category system and the guidelines have no clear definitions that ensure appropriate and consistent application of the categories across a range of geographic and ecological contexts. The guidelines are filled with terms that even in the scientific literature carry a variety of different meanings. It is neither reasonable nor realistic to expect that managers and politicians use them in a consistent way. There are no universally accepted definitions of many terms such as ecosystem, habitat, environmental services, ecological processes, dynamic and evolutionary state, ecological quality, integrity, stability, etc.. These are just some examples of the variety of fuzzy concepts that a manager must be able to master in order to assess a protected area and select

the appropriate category for designation under the current system.

For example, "ecosystems" are scale-dependent and in the field it is sometimes difficult to define their boundaries unless you use the concept to mean habitat types; but "habitat" is a species-specific concept and the term habitat cannot be used for all species or for many species in an ecosystem, unless you refer to yet another concept like "vegetation type". In reality, ecological processes are difficult to identify and to be used as criteria for field assessment. Maintaining species and functioning ecosystems, which are in a dynamic state, implies a wealth of technical knowledge that is not available or immediately obvious in the majority of areas or to the majority of managers. Finally, among all ecological theories the concept of "ecological stability" is one of the most controversial and difficult. In short, the concepts used to underpin the designation of individual protected areas to individual categories is fraught with complexity, rendering the current system, at best, difficult to apply and, more generally, somewhat futile for meaningful application by general practitioners.

While it has been suggested that a standardized glossary of terms should accompany the guidelines for application of the protected area category system, we caution that this would be only a partial and, we believe, poor solution to this problem as the mismatch between the huge complexity of the ecological theories behind these words and concepts. As the need for a brief definition to enable a fast and easy method to select the category is likely to continue, the only suitable solution is to deeply revise the text of the guidelines. This would require an attempt to eliminate as much as possible all sources of subjectivity and ambiguity, use only clear and unambiguous concepts that have the robust support of scientific theories, and universally accepted terms that have a direct relation to features and processes that can be identified in the field by non-experts and without complex ecological background information and insights.

d. Clearly define desired biodiversity conservation targets from the outset

In order to achieve biodiversity conservation, we believe that the values and attributes of biodiversity to be conserved should be more clearly articulated in the description of various protected area categories (including new categories to account for systems or networks of protected areas). This should be done in a standardized manner and from an objective standpoint and may require the use of proxies or surrogates, i.e. meeting the needs of species as a practical surrogate for all elements and processes to be conserved. In the current system, biodiversity conservation is only intended to mean that a species is present within a protected area and that the protected area must provide defence against detrimental factors: but such a definition is neither adequate nor sufficient in conserving such a species by even the most minimal standards of current ecological theory and conservation practice.

In defining biodiversity conservation targets, the IUCN protected area category system should expand from the simplistic concept of target species representation (i.e. presence) to include also that of species persistence and apply this concept to protected area categories. IUCN SSC has developed an accepted global standard to assess the conservation status of species and their risk of extinction (or probability of persistence). The system could be applied to evaluate the consistency of a protected area's management effectiveness in maintaining, restoring, contributing to securing or improving the status of resident biodiversity. Application of the IUCN Red List criteria to individual species is currently the best proxy for assessing the conservation status of species (ALL species, not just those threatened with extinction) in the wild and could be applied to rank protected areas depending on their contribution to maintaining a species or groups of species at a certain status level. A further refinement of the IUCN Red List approach could lead to the conservation objective of maintaining a certain number of individuals of one (or many) species, particularly those more strictly associated with the ecological processes that provide the desired goods and services (i.e. those most closely linked to human livelihoods and wellbeing). Although it may not be applicable to all species, this would be the ideal approach that we would like to see explicit in the revised guidelines or any new system for categorizing protected areas,. It adds to the true dimension of protected areas as tools for conserving biodiversity, makes the whole system much stronger and conservation oriented, and reduces the political/subjective component in favour of more strict criteria based on definable biological components.

For example, if a protected area is placed in a category where it is expected to conserve a number of species/communities or processes produced by those species/communities, that area has to have a minimum size, configuration, habitat types, etc. to ensure that the persistence of those species/communities is, at the very least, not threatened. In short, if protected areas have to be assessed for their role in biodiversity conservation, they should be qualified using criteria

that include targets of population size at least for a set of species that are the primary reason or are associated to the functional processes that are the primary reason for establishing that area in the first place. This further reinforces the need for a vision of networks of protected areas rather than individual protected areas in isolation.

Moreover, as the drive to assess the effectiveness of management in protected areas increases, explicit quantitative targets (population sizes, trends, indices, etc.) to measure the "state" of biological diversity will provide the basis for methods to measure their de facto contribution to conservation.

e. Base protected area categories on conservation objectives to benefit conservation planning, monitoring and the evaluation of protected area management effectiveness

What is outlined above opens an entirely new vision of how the IUCN protected area category system should be revised. Although the adoption of a new framework is not under discussion at this stage it is useful to outline it here, because ultimately this is what IUCN should aim for.

The pressure-state-response model is seen as the ideal framework upon which to base any future debate. This could be deeply integrated with the ideas that have been developed by the Conservation Measures Partnership, in agreement and collaboration with IUCN SSC, and that underpin the newly adopted standards for the assessment of the effectiveness of threat reduction (pressure) and conservation measures (response) for conserving species. These same ideas and approaches have for some time been used in conservation planning by academic and non-academic institutions (e.g., the University of Queensland, UNDP, World Bank, the GEF, WWF, TNC).

A protected area should be established, as stated above, for conserving species, groups of species for their associated biological/cultural/traditional values and attributes or ecosystem processes. To understand how a protected area or a network or system of protected areas can achieve their primary conservation objectives, the relevant threats to the elements of biodiversity to be conserved must be identified first. When the threats are known, the conservation measures or management actions that should be taken to counteract the proximate and ultimate threats can be more easily determined. Reduction in threats will act as a measure of conservation outcomes, though ultimately success will be measured through the state of the biodiversity being conserved.

If the conservation objectives and management actions needed to reduce threats for individual protected areas or networks of protected areas in the IUCN protected area category system were more explicitly linked this would allow at least three major achievements:

1. the ability to know what a given system of protected areas is expected to achieve in terms of conservation;

2. the ability to plan what type of protected area (or network of protected areas) is needed and suitable to protect a species of special concern, an assemblage of species needed to fulfil necessary traditional/cultural values or the functions of ecosystems contained within; including what is needed in terms of area and/or management actions; and

3. the ability to know what to monitor and how to evaluate the effectiveness of a protected area, given its objectives and its ability to counteract threats in the fulfilment of its conservation objectives.

Ultimately, conservation achievement of a protected area or a system of protected areas – that of true conservation impact – will be assessed through monitoring the conservation status of biodiversity. Monitoring the conservation status of species provides an excellent starting place.

Specific comments to improve the current guidelines

Since the review initiated by WCPA under WCCRes3.048 is not aimed at a substantial revision of the system and its articulation, it may not be possible to address our general concerns and basic comments at this stage. Therefore, to respond to the need for gradual and partial revision of the guidelines for application of the IUCN protected area categories, we offer two examples of how the guidelines could be modified to accommodate at least some of the concerns for biodiversity conservation (proposed text changes are highlighted) without starting from scratch.

Notably, however, even though these partial modifications and interpretations would improve the current system, they would not constitute a fully satisfactory solution to the very significant and substantial issues outlined above. These would require a more meaningful and rational process of revision.

2.1 Category II. National Park: protected area managed mainly for ~~ecosystem protection~~ the conservation of species and large habitat types and recreation.

Definition:
~~Natural~~ area of land and/or sea, designated to (a) protect, alone or in conjunction with an established system of other protected areas, the viability of an assemblage of species, (b) protect the ecological integrity of one or more ecological systems, ~~exclude exploitation or occupation inimical to the purposes of designation of the area~~ and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be ~~environmentally and culturally~~ compatible with the purpose of designation of the area.

Objectives of Management:
- To protect natural and scenic areas of national and international significance for spiritual, scientific, educational, recreational or tourist purposes;
- To perpetuate, in ~~as~~ its naturally dynamic state, the communities of species included in the designated area and the protection of identified ecosystem services provided ~~representative examples of physiographic regions, biotic communities, genetic resources, and species to provide ecological stability and diversity~~;
- To manage visitor use for inspirational educational, cultural and recreational purposes at a level compatible with the conservation objective of the designated area ~~which will maintain the area in a natural or near natural state~~;
- To eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation;
- To maintain respect for the ecological, geomorphologic, sacred or aesthetic attributes which warranted designation; and
- To take into account the needs of indigenous people, including subsistence resource use, in so far as these will not adversely affect the other objectives of management.

Guidance for selection:
- The area should have a high national and international uniqueness (irreplaceability) value for the conservation of one or more species, ecosystem services, habitat types, landscape features, scenery, and cultural/traditional feature ~~contain a representative sample of major natural regions, features or scenery, where plant and animal species, habitats and geomorphological sites are of special spiritual, scientific, educational, recreational and tourist significance~~.
- The area should be large enough to ensure, alone or with ancillary support from an established network of other protected areas, the conservation of the viability and natural dynamics of the biodiversity features which were the purposes of designation over their natural spatial and temporal scales. ~~contain one or more entire ecosystems not materially altered by current human occupation or exploitation~~.

2.2 Category IV: ~~Habitat/~~Species/Habitat type Management Area: protected area managed mainly for conservation through management intervention

Definition:
Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of the habitat~~s and/or to meet the requirements~~ of specific species and/or groups of species or communities.

Objectives of Management:
- To secure and maintain the habitat of target ~~conditions necessary to protect~~ ~~significant~~ species, groups of species, or communities ~~or physical features of the environment~~ where ~~these~~ it requires specific human intervention ~~manipulation for optimum management~~;
- To facilitate scientific research and environmental monitoring as primary activities associated with sustainable resource management;
- To develop limited areas for public education and appreciation of the characteristics of the area ~~habitats concerned~~ and of the work of wildlife management;
- To eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation; and
- To deliver benefits to people living within the designated area as are compatible ~~consistent~~ with the other objectives of management.

Guidance for Selection:
- The area should play, alone or as part of an existing network of associated areas, an important role in the conservation ~~protection~~ and maintenance of viable populations ~~survival~~ of species, ~~(incorporating, as appropriate, breeding areas, wetlands, coral reefs, estuaries, grasslands, forests or spawning areas, including marine feeding beds)~~.
- The area should be one where essential components of the habitats for target species, of global, national or local importance are protected. ~~protection of the habitat is essential to the well being of nationally or locally important flora, or to resident or migratory fauna~~.
- Conservation of the~~se~~ habitat~~s~~ of these species or groups of species should depend upon active

intervention by the management authority, if necessary through environmental ~~habitat~~ manipulation (c.f. category 1a)

- The size of the area should depend on the habitat requirements of the species to be protected and may range from relatively small to very extensive.

4. The IUCN categories

The 2004 World Conservation Congress voted overwhelmingly to retain the current categories and to neither add to nor subtract from the list. Although the task force was open to opposing opinions, and for instance debated the proposal that categories V and VI be abandoned altogether, the assumption has been that the six categories were likely to remain broadly the same. However, there was also a strong call from IUCN members for greater clarity with respect to the interpretation of individual categories. The following papers examine each category in turn (with separate analysis of Ia and Ib). Some draw on the experience of individual specialists while others have been drawn up through IUCN task forces or similar bodies. Category Ib represents the views of the WCPA Wilderness Task Force. Category V draws on a week long meeting of the WCPA Landscapes Task Force sponsored by the regional government of Catalonia in 2006. The Category VI paper was the first output of the newly-formed Category VI task force, which met in Latin America during early 2007. These papers are not the final word on what was included in the new guidelines of course, but served as a basis for discussion within the wider WCPA and IUCN membership.

4.1. Category Ia

Kent H. Redford and Nigel Dudley

Category Ia reserves are typically highly protected areas that are set aside to protect biodiversity or geological features whose persistence is incompatible with all but very limited human influencer and where human visitation is strictly controlled and limited to ensure preservation of the specified conservation targets. Such reserves can serve as indispensable reference areas for scientific research. This paper broadly keeps to the 1994 concepts but proposes some important modifications to guidance.

Primary objective

Current Definition: Area of land and/or sea possessing some outstanding or representative ecosystem, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Suggested Revision: Conserving nationally or globally outstanding occurrences of terrestrial and/or marine ecosystems, species (occurrences or aggregations), and/or geological features. These occurrences will have been formed mostly or entirely by non-human forces and will be degraded or destroyed when subjected to all but very light human impact.

Other objectives: (revised from 1994 guidelines)

1994 version:

- ✓ To preserve habitats, ecosystem and species in as undisturbed a state as possible
- ✓ To maintain genetic resources in a dynamic and evolutionary state
- ✓ To maintain established ecological processes
- ✓ To safeguard structural landscape features or rock exposures
- ✓ To secure examples of the natural environment for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded;
- ✓ To minimize disturbance by careful planning and execution of research and other approved activities; and
- ✓ To limit public access

Suggested revisions

- ✓ To preserve ecosystem, species and geological features in a state as undisturbed by modern humans as possible
- ✓ To conserve the composition, structure, function and evolutionary potential of the genetic component of biodiversity
- ✓ To conserve the composition, structure, function and evolutionary potential of the species component of biodiversity
- ✓ To conserve the composition, structure, function and evolutionary potential of the ecosystem component of biodiversity
- ✓ To conserve structural landscape features
- ✓ To secure examples of the natural environment for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded;
- ✓ To minimize disturbance by careful planning and execution of research and other approved activities; and
- ✓ To limit public access

Distinguishing features

The area should generally be:

- ✓ of sufficient size to ensure the integrity and long term maintenance of the specified conservation targets or be capable of being increased to achieve this end;
- ✓ have a largely complete set of expected native species in ecologically significant densities or capable of returning to such densities
- ✓ have a full set of expected native ecosystems, largely intact with intact ecological processes, or processes capable of being restored with minimal management intervention
- ✓ free of significant direct intervention by modern humans that would compromise the specified conservation objectives for the area;
- ✓ should not require substantial and on-going management to achieve its conservation objectives;
- ✓ surrounded by land uses that should, or could, contribute to the achieving of the area's specified conservation objectives
- ✓ due to the above factors should be suitable for monitoring the relative impact of human activities
- ✓ be managed for relatively low visitation by humans

The area could be of religious or spiritual significance (such as a sacred natural site) so long as biodiversity conservation is identified as a primary objective. In this case the area might contain sites that could be visited by people engaged in faith activities consistent with the area's management objectives.

Challenges

Scholars have increasingly shown that humans have played important roles in altering areas which were once thought to be largely untouched by human action. As a result it is commonly thought that there are few areas of the terrestrial and marine worlds which do not bear the hallmarks of earlier human action, though in many cases these people are no longer present on the ecological stage. As a result, conserving significant areas to be completely free of any earlier human imprint is difficult.

This conclusion has combined with a growing criticism of national parks, and in particular, the "Yellowstone model." This model for creating national parks has carried forward an apparently too common practice of displacing people in order to save nature. As a result, those protected areas that are designed specifically to exclude people are often, and increasingly, faulted for having displaced people.

It is also becoming depressingly apparent that some human actions have a regional and global reach that is not restricted by protected area boundaries. This is most apparent with climate and air pollution and new and emerging diseases.

Role in the landscape/seascape

Category 1a areas are a vital component in the toolbox of conservation. As the Earth becomes increasingly influenced by the rising tide of human activities, there are increasingly fewer areas left where such activities are strictly limited. Without the protection accompanying the 1a designation, there would rapidly be no such areas left. As such, these areas contribute in a significant way to conservation/development through:

- ✓ Protecting some of the earth's richness that will not survive outside of such strictly protected settings;
- ✓ Protecting religious and cultural sites when associated with biodiversity conservation;
- ✓ Providing reference points to allow measurement of the impact of human-induced change outside such areas;
- ✓ Providing areas where ecology can be studied in as pristine an environment as possible
- ✓ Providing reference points to measure the impact of human-induced change that is not confined to particular areas (e.g. pollution)

What makes category Ia unique?

Allocation of category is a matter of choice, depending on long-term management objectives, sometimes often with a number of alternative options that could be applied in any one site. The following table outlines some of the main reasons why category Ia may be the chosen in specific situations vis-à-vis other categories that pursue similar objectives.

Category Ia differs from the other categories in the following ways:

Category Ib	Category Ia and Ib are two aspects of the same thing; Ib protected areas will generally be larger and less strictly protected from human visitation: although not usually the subject of mass tourism they usually would usually be open to people prepared to travel on foot or by boat, which is not always the case in Ia.
Category II	Category II protected areas usually combine ecosystem protection with tourism on a scale not suitable for category I.
Category III	Category III protected areas are generally centred on a particular natural monument, so that the primary focus of management is on maintaining this feature, whereas objectives of Ia are generally aimed at a whole ecosystem.
Category IV	Category IV protected areas protect fragments of ecosystems or habitats, which often require continual management intervention to maintain. Category Ia areas on the other hand should be largely self-sustaining and their objectives preclude such management activity or the rate of visitation common in category IV. Category IV protected areas are also often established to protect particular species or habitats rather than the specific ecological aims of Ia.
Category V	Category V protected areas are generally cultural landscapes or seascapes that have been altered by humans over hundreds or even thousands of years and that rely on continuing intervention to maintain their qualities. Many category V protected areas contain permanent human settlements.

	All the above are incompatible with category Ia.
Category VI	Category VI protected areas contain areas of sustainable use of natural resources, which are incompatible with Ia.

Examples

Classic Category Ia areas include those set aside particularly for research purposes or to protect ecosystems too fragile to survive anything more than minimum human impact. The strict reserves known as *zapovedniks* in the Russian Federation and former Soviet states fall into this category, as do the biological reserves in Brazil, with other examples being:

- ✓ The **H J Andrews Experimental Forest** in Oregon, situated in a 6,400 hectare watershed with examples of old-growth forest and subject to long-term research projects by the Oregon State University and others – one of 24 major ecosystem research sites in the United States.

Malla strict nature reserve in Finland, near the borders with Sweden and Norway, was established for scientific research and nature conservation. Although a trail runs through the park, access away from this area requires written permission from the state protected area agency Metsähallitus.

- ✓ The **Sulaybia Experimental Station** in Kuwait was set up in 1975 to help preserve an important area of coastal wetland to to facilitate research including of large populations of over-wintering birds.

- ✓ The **Kogyae Strict Nature Reserve** in Ghana protects savannah grassland and provides a research area, particularly focusing on the way that ecology responds to natural disasters.

4.2. Category Ib

Cyril Kormos

This paper reviews the current (1994) guidelines for category Ib-Wilderness under IUCN's system of protected area categories. The paper preserves the focus on biodiversity conservation, which is strongly implicit in the current text, but makes this focus more explicit, while also broadening the language describing the management objectives for wilderness protected areas. This paper also provides some additional clarity on the degree of acceptable human use of wilderness areas, a question that has been central in the international wilderness debate since the passage of laws and policies defining wilderness protected areas.

Current Definition: Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent of significant human habitation, which is protected and managed so as to preserve its natural condition.

Objectives

A. Current Objectives of Management under 1994 Guidelines:

- ✓ To ensure that future generations have the opportunity to experience understanding and enjoyment of areas that have been largely undisturbed by human action over a long period of time;
- ✓ To maintain the essential attributes and qualities of the environment over the long term;
- ✓ To provide for public access at levels and of a type which will serve best the physical and spiritual well-being of visitors and maintain the wilderness qualities of the area for present and future generations; and
- ✓ To enable indigenous communities living at low density and in balance with the available resources to maintain their lifestyle.

B. Proposed Revisions submitted by the IUCN-WCPA Wilderness Task Force:

Primary Objectives

- ✓ To preserve the long-term integrity of large, mainly undisturbed natural areas which:
  - protect and maintain viable and functional populations of native biodiversity, including migratory species, intact predator-prey systems, genetic diversity within and between species, evolutionary processes, and functioning ecological processes; and
  - provide regulatory ecosystem services (as defined in the Millennium Ecosystem Assessment, 2003), including buffering biodiversity from the impacts of climate change.
- ✓ To maintain these areas free of modern infrastructure, including roads, pipelines, power lines, cell phone towers, other permanent structures, low flying aircraft etc.), preferably with no motorized access (or highly regulated motorized access where strictly necessary and consistent with the biological objectives listed above);
- ✓ To maintain these areas free of development and industrial extractive activity, including but not limited to mining, hydropower development, oil and gas extraction, and agricultural development including livestock grazing.

Secondary Objectives

- ✓ To enable indigenous communities living at low density and in balance with the available resources to maintain their traditional wilderness-based lifestyle and customs;
- ✓ To allow for low- impact recreational, educational, and scientific research activities consistent with the biological criteria listed above;
- ✓ To manage these areas so as to protect the relevant cultural values and non-material benefits to indigenous or non-indigenous populations, such as solitude, respect for sacred-sites, respect for ancestors etc.

Hierarchy of objectives

A. Current Hierarchy of Objectives (as listed in the "Matrix of management objectives and IUCN protected area management categories", p. 8 1994 Guidelines):

Primary: Wilderness conservation; maintenance of environmental services;

Secondary: Preservation of Species and genetic diversity; tourism and recreation

Tertiary: Sustainable use of resources from natural systems; scientific research

B. Proposed Revisions Submitted by the IUCN-WCPA Wilderness Task Force:

Primary:

- ✓ Wilderness conservation;

- ✓ Maintenance and protection of viable and functional populations of native biodiversity, including migratory species, intact predator-prey systems, genetic diversity within and between species, evolutionary processes, and functioning ecological processes;
- ✓ Maintenance of regulatory ecosystem services.

Secondary:
- ✓ Sustainable use by traditional indigenous communities living in low densities;
- ✓ Scientific research;
- ✓ Spiritual inspiration;
- ✓ Ecologically and culturally sensitive tourism and recreation; and
- ✓ Educational activities.

Guidance for selection / distinguishing features

Current Guidance from 1994 Guidelines

- ✓ The area should possess high-natural quality, be governed primarily by the forces of nature, with human disturbance substantially absent, and be likely to continue to display those attributes if managed as proposed.

- ✓ The area should contain significant ecological, geological, physiographic, or other features of scientific, educational, scenic or historical value.

- ✓ The area should offer outstanding opportunities for solitude, enjoyed once the area has been reached, by simple, quiet, and non-intrusive means of travel (i.e. non-motorized).

- ✓ The area should be of sufficient size to make practical such preservation and use

Proposed revisions submitted by the IUCN-WCPA Wilderness Task Force

- ✓ Wilderness areas should be characterized by a high degree of intactness: containing a large percentage of the original extent of the ecosystem, complete or near-complete native faunal and floral assemblages, and large mammals and top predators.

- ✓ Wilderness areas should be of a sufficient size to protect biodiversity, and to maintain ecological processes and ecosystem services. Ideally they should also be of sufficient size to buffer against the impacts of climate change, and to maintain evolutionary processes.

- ✓ The area should offer outstanding opportunities for solitude, enjoyed once the area has been reached, by simple, quiet, and non-intrusive means of travel (i.e. non-motorized, or highly regulated motorized access where strictly necessary and consistent with the biological objectives listed above).

- ✓ Inappropriate or excessive human use or presence in a wilderness area will decrease wilderness values and ultimately will prevent an area from meeting the biological and cultural criteria listed above. However, human presence should not be the determining factor in deciding whether to establish a wilderness area. They key objectives are biological intactness, and the absence of permanent infrastructure, extractive industries, agriculture, motorized use, and other indicators of modern or lasting technology.

- ✓ Somewhat disturbed areas that are nonetheless capable of restoration to a wilderness state over time, and smaller areas that might play an important role in a larger wilderness protection strategy should qualify for a wilderness designation if the management objectives for those areas are otherwise consistent with the objectives set out above.

4.3. Category II

Craig Groves

Current Definition: Natural area of land and/or sea, designated to: (a) protect the ecological integrity of one or more ecosystems for future generations, b) exclude exploitation or occupation inimical to the purposes of designation of the area, and c) provide a foundation for spiritual, scientific, educational, recreational, and visitor opportunities, all of which must be environmentally and culturally compatible**.**

Objectives

Current primary Objective: protected area managed mainly for ecosystem protection and recreation (from 1994 Guidelines)

Proposed Revisions to Primary Objective[7]:

- ✓ Exclude commercial exploitation as part of the primary objective
- ✓ Add non-extractive and non-consumptive uses to the primary objective
- ✓ Focus on natural or native ecosystem protection (as opposed to ecosystems that contain non-native species)
- ✓ Add the notion of ecologically intact ecosystems or healthy ecosystems (meaning that they should contain the full component of native species or we should be working toward restoring the full component as well as functional ecological processes such as natural flow regimes or natural fire regimes)
- ✓ These areas should provide benefits to local communities
- ✓ Recreation should not be a primary objective because of the difficulties that managers can encounter in trying to meet both the primary objectives of ecosystem protection and recreation; could add the qualifier of *passive* recreation
- ✓ Change ecosystem protection to landscape protection and define what we mean by landscape (associated landforms, species, habitats)
- ✓ Strict controls on human settlement
- ✓ Allow as a primary objective sustainable uses by indigenous communities
- ✓ Incorporate the notion of ecological integrity but be sure to include native species composition and ecological function as part of integrity

Preliminary Recommendation: Ecosystem protection is an ambiguous term. I would suggest modifying the primary objective to indicate that these areas are managed primarily for conserving and restoring the native elements of biodiversity (genes, species, communities), their underlying ecological structure, and environmental processes that support these native species. Non-consumptive forms of environmental education and recreation that are consistent and supportive of the first objective would also be part of the primary management objective. It would be possible to simplify the primary objective as one of biodiversity conservation and non-consumptive forms of education and recreation, but it would be necessary to then define biodiversity conservation as having the three components of composition, structure, and function and define those terms with some specificity.

Other Objectives: (from 1994 guidelines)

- ✓ To protect natural and scenic areas of national and international significance for spiritual, scientific, recreational, or tourist purposes
- ✓ To perpetuate, in as natural a state as possible, representative examples of physiographic regions, biotic communities, genetic resources, and species, to provide ecological stability and diversity
- ✓ To manage visitor use for inspirational, educational, cultural, and recreational purposes at a level which will maintain the area in a natural or near natural state
- ✓ To eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation
- ✓ To maintain respect for the ecological, geomorphological, sacred, or aesthetic attributes which warranted designation
- ✓ To take into account the needs of indigenous people, including subsistence resource use, in so far as these will not adversely affect the other objectives of management

Proposed Revisions to Other Objectives[7]:

- ✓ Add unimpaired natural processes as an ideal
- ✓ Maintaining viable populations of native species
- ✓ Steer away from ecosystem services as an objective – for example, opens up Marine

[7] The bulleted items below represent comments received from biologists, planners, and protected area managers (n=10) to whom I sent a series of questions on objectives, distinguishing features, challenges, and landscape/seascape role of Category II protected to assist me in the development of this discussion paper.

Protected Areas to a goal of increasing fish yields at the expense of other conservation objectives; in contrast, others like the idea of including ecosystem services as a secondary objective if a systematic effort is made to economically value these services

- ✓ Resource extraction is an inappropriate objectives
- ✓ May be a need for more intensive management to attain natural resource objectives
- ✓ Representative assemblages of native species at densities sufficient to allow them to play their ecological role
- ✓ Add something specific about maintaining diversity at different levels – community, species, and genetic
- ✓ Consider adding language about ecosystem integrity and resilience
- ✓ Contribute to poverty alleviation and human well being (bringing in the Millennium Development Goals)
- ✓ Bring in concept of conserving migration routes as a secondary objective
- ✓ Incorporate language on ecological function and integrity
- ✓ These areas should be maintained and managed for their natural values whether or not they are "profitable" to society; incorporate the notion that society has an obligation to conserve these areas because of their natural values

Preliminary Recommendations: Add an objective (to the original 1994 objectives) related to maintaining viable and ecologically functional populations of native species and the ecological integrity of communities and ecosystems for their long-term persistence. (We can define viability, ecologically functional, and integrity in some detail if necessary.) Add another objective related to the contribution that these areas make within a regional network of conservation areas including the ability to conserve wide-ranging species, linkage or corridor areas, and regional ecological processes that often cannot be conserved adequately by any individual protected area. Revise the third objective to indicate that visitor use should be managed so as to not cause any significant biological or ecological degradation to the natural resources of the area. Modify the original second objective to remove the ambiguous language on diversity and stability. Modify the first objective to include conservation as one of the purposes.

Distinguishing Features

From 1994 guidelines

- ✓ The area should contain a representative example of major natural regions, features or scenery, where plant and animal species, habitats and geomorphological sites are of special spiritual, scientific, educational, recreational, or tourist significance.
- ✓ The area should be large enough to contain one or more entire ecosystem not materially altered by current human occupation or exploitation.

Proposed Revisions to Distinguishing Features[7]:

- ✓ Support of surrounding (human communities) including in some cases co-management of natural resources
- ✓ Area capable of contributing to a network of protected areas that, in turn, represent a system of sources and sinks for wildlife
- ✓ Bring in the notion of contributing to a complementary (in terms of representing different ecosystem types) network of protected areas (e.g., we don't need more areas that conserve "rocks and ice" in the western US) (could also be stated in terms of inadequately conserved species and ecosystems, bringing in the concept of gap analysis)
- ✓ Creation of area does not displace indigenous people or disturb their legal rights
- ✓ Complementarity is good but we also need replication in terms of areas that conserve species and ecosystems
- ✓ Minimal chances of successful invasions by non-native species
- ✓ The potential to maintain or restore naturalness in terms of community structure, function, and composition
- ✓ Contribute to the global protected areas network in terms of species and ecosystem representation
- ✓ Potential for protecting the resources from future threats
- ✓ Drop the idea of national significance because it cannot be adequately defined or defended
- ✓ Incorporate language on the conservation significance of proposed area – its under-representation or non-representation in a system of protected areas
- ✓ Include not only the species or ecosystem (the targets of conservation) as part of the selection criteria, but also the ecological processes on which those targets depend

Preliminary Recommendations: The first (1994) distinguishing feature should be modified to include the idea of representative examples of biological and environmental (including the physical and biophysical environment) features as identified through regional, ecoregional, national, or continental conservation plans or assessments and to incorporate the notion of native plant and animal species. The second distinguishing

feature should be revised to indicate that the area should be of sufficient size and ecological quality so as to maintain ecological functions and processes that will allow the native species and communities to persist for the long-term with minimal management intervention. A third distinguishing feature would be the contribution that the area makes to a regional network of protected areas including the possibility of serving as a linkage area or corridor between existing conservation lands and waters. Yet a fourth distinguishing feature could be that the composition, structure, and function of biodiversity is to a great degree in a "natural" state or has the potential to be restored to such a state (we will probably need to put in some language on naturalness). Finally, we should consider a feature which articulates that the potential or opportunity exists to manage threats to the area so as to minimize the chances that the natural features of the area will be significantly degraded over the long term.

Challenges[7]

- ✓ Will private ownership or foundation ownership of land/water preclude an area from qualifying for category II
- ✓ Applying greater rigor to the definition of this category
- ✓ Displacement of indigenous people, providing alternative livelihoods to indigenous people
- ✓ Types and levels of allowable recreation
- ✓ Commercialization of lands in this category
- ✓ Compensation for displaced fishermen in marine protected areas
- ✓ Providing alternative food sources for subsistence fisheries
- ✓ Shifting baseline of what we consider a natural ecosystem
- ✓ Mariculture
- ✓ Managing natural resource extraction
- ✓ Building and maintaining adequate monitoring, assessment, and report systems to improve management effectiveness
- ✓ Building good governance systems and appropriate "ownership" in the management process of these areas
- ✓ Improving the management capacity, developing training curricula, establishing competency standards
- ✓ Lack of compliance by tour operators
- ✓ Trend towards privatization of management of these areas
- ✓ Political perception of resources being "locked up"
- ✓ Shifting baselines of what is regarded as "natural"

Preliminary Recommendations: These challenges could be consolidated into a few key threats or management issues.

Role in the landscape/seascape

These category II areas should be more strictly protected areas where ecological functions and native species composition are intact; surrounding landscapes can have varying degrees of consumptive or non-consumptive uses but should serve as buffers to the protected areas and their functions

Preliminary Recommendations: There are two thoughts about this role, one looking inward to the area and the second looking outward. The former role is identifying the species, ecosystems, or processes that the area is contributing to conserving on a broader landscape or regional scale. The latter thought relates to management issues that occur across the broader landscape beyond the protected area boundary which must be effectively dealt with so that the protected area itself will have a greater probability of persisting over the long term. (This same notion is captured in the concept of a buffer zone.)

Case Studies

Suggested Case Studies for revisions:

- ✓ Yellowstone National Park (US)
- ✓ Kruger National Park (South Africa)
- ✓ Kakadu National Park (Australia)
- ✓ (Latin America example)
- ✓ (Asia example)

4.4. Category III

Nigel Dudley

The current use of the category is reviewed and some changes made to emphasise the importance of biodiversity in selection, clarify what is meant by "natural monument" and discuss how category III protected areas fit into national protected area systems.

Objective

Proposed primary objective

- ✓ To protect specific outstanding natural features and their associated ecology

Other possible objectives of management:
(Other possible objectives are applicable to the extent that they do not undermine the primary objective.)

- ✓ To provide biodiversity protection in landscape or seascapes that have otherwise undergone major changes[8]
- ✓ To protect specific natural sites with spiritual and / or cultural values where these also have biodiversity values
- ✓ To facilitate traditional spiritual and cultural activities related to the site
- ✓ To provide opportunities for public appreciation, research, education and interpretation
- ✓ To deliver benefits consistent to the other objectives of management to resident or local communities

Distinguishing features

Category III protected areas are relatively small sites that focus on a single prominent natural feature and its associated ecology, rather than on a broader ecosystem. They are managed in much the same way as category II.

The term "natural" as used here can refer to both wholly natural features (the commonest use) but also sometimes features that have been influenced by humans. In the latter case these sites should also always have important associated biodiversity values, which should be reflected as a priority in their management objectives if they are to be classified as a protected area rather than an historical or spiritual site. Potential category III protected areas include:

- ✓ **Natural geomorphologic features**: such as waterfalls, cliffs, craters, fossil beds, sand dunes, rock forms, valleys and marine features such as sea mounts or coral formations
- ✓ **Culturally-influenced natural features**: such as cave dwellings and ancient tracks
- ✓ **Natural-cultural sites**: such as the many forms of sacred natural sites (sacred trees or groves, springs, waterfalls, mountains etc of importance to one or more faith groups
- ✓ **Cultural sites with associated ecology**: where protection of a cultural site also protects significant and important biodiversity

Biodiversity values of category III protected areas fall into two main types:

- ✓ Biodiversity that is uniquely related to the ecological conditions associated with the natural feature – such as the spray zones of a waterfall, the ecological conditions in caves or plant species confined to cliffs.
- ✓ Biodiversity that is surviving because the presence of cultural or spiritual values at the site have maintained a natural or semi-natural habitat in what is otherwise a modified ecosystem – such as some sacred natural sites or historical sites that have associated natural areas (e.g. some of the Mayan ruins in Central America and Angkor Watt in Cambodia). In these cases the two key criteria for inclusion as a protected area will be (i) value of the site as a contribution to broad scale biodiversity conservation and (ii) prioritisation of biodiversity conservation within management plans.

Category III has been suggested as providing a natural management approach for many sacred natural sites, such as sacred groves or trees. Although sacred natural sites are found in all categories and can benefit from a wide range of management approaches, they may be particular suited to management as natural monuments.

[8] Noting that protection of specific cultural sites can often provide havens of natural or semi-natural habitat in areas that have otherwise undergone substantial modification – e.g. ancient trees around temples

Category III is likely to be a relatively uncommon designation as compared to other categories (and indeed tightening the criteria for inclusion may result in a reduction in the overall number recognised as protected areas).

Challenges

- ✓ It will sometimes be difficult to ascertain the conservation values of category III sites, particularly where these have a cultural element and in cases where there may be pressure to accept them within the protected areas system to help protect cultural or spiritual values – managers of national protected area systems will often have to make judgement calls in these cases
- ✓ Not all natural monuments are permanent – while some sacred trees have survived for a thousand years or more they will eventually die – indeed many trees are considered to be sacred in part because they are already very old. It is not clear what happens to a category III protected area is its key natural monument dies or degrades
- ✓ It is sometimes difficult to draw the boundaries between a natural monument and cultural site, particularly where archaeological remains are included within category III

Role in the landscape / seascape

- ✓ Category III is really a category to protect the unusual rather than to provide logical components in a broad scale approach to conservation, so that their role in landscape or ecoregional strategies is sometimes opportunistic rather than planned.
- ✓ Important natural monuments can sometimes provide an *incentive* for protection even in areas where other forms of protection are resisted due to population or development pressure, such as important sacred or cultural sites and in these cases category III can preserve samples of natural habitat in otherwise cultural or fragmented landscapes

What makes category III unique?

Category III could be said to be the odd one out of the six categories; being aimed at protecting a particular feature it is perhaps the most heavily influenced by human perceptions of what is of value in a landscape or seascape rather than by any more quantitative assessments of value. It is also determined to an even greater extent than usual through a combination of choice and management approaches – basically the decision to make a particular natural feature the centrepiece of management. Not all natural monuments are managed as category III; for instance the Grand Canyon in Arizona is managed as category II, despite being one of the most famous natural monuments in the world, because the size of the protected area and associated management fits better with the category II model. Category III could be defined as areas that might have been category II but are too small to provide effective ecosystem values.

Category III differs from the other categories in the following ways:

Category Ia Category Ib	There is no particular stipulation that category III should be found in wilderness areas; indeed many natural monuments are preserved in areas that are otherwise cultural or fragmented
Category II	The emphasis of category III management is not on protection of the whole ecosystem, but of a particular natural features; otherwise III is similar to II and managed in much the same way
Category IV	The emphasis of category III management is not on protection of the key species or habitats, but of a particular natural features
Category V	Category III is not confined to cultural landscapes, and management practices will probably focus more on preservation than in the case of category V
Category VI	Category III is not aimed at sustainable resource use

Likely impact of the changes

The changes proposed put much greater emphasis on the biodiversity values of a category III site, bringing it more closely in line with the overall IUCN definition of a protected area, and also seek to give greater clarity about when cultural values also might fit into this category. If accepted, they will narrow the scope of areas that can be included within category III away from some of the more purely cultural sites.

Case studies for the guidelines

- ✓ Victoria Falls, Zambia example of a natural feature
- ✓ Caves managed both because they are prehistoric dwelling but also important ecologically – possibly bushman painting sites in the Drakensberg
- ✓ Kaya forests, Kenya, example of a sacred natural site that also has important biodiversity values
- ✓ Termessos Roman city and nature reserve, Turkey, a cultural site with biodiversity values.

4.5. Category IV

Nigel Dudley and Grazia Borrini-Feyerabend

This paper reviews the definition of category IV protected areas and proposes a small but significant change, to switch the emphasis from the **process** of management as in the 1994 guidelines more broadly towards the overall management **objectives**, particularly as they relate to protection of **species**. The proposed new guidance is outlined first and discussion of the changes follows.

Objectives

Proposed primary objective: Conservation of species and habitats in fragments of ecosystems

Other possible objectives of management:
(Other possible objectives are applicable to the extent that they do not undermine the primary objective.)

- ✓ To preserve culturally-important management approaches and vegetation patterns
- ✓ To facilitate scientific research and environmental monitoring
- ✓ To develop public education and appreciation of the characteristics of the species and/or habitats concerned
- ✓ To eliminate, where necessary, and/or to prevent occupation or exploitation inimical to the purposes of designation
- ✓ To deliver benefits to people living in or near to the designated protected area

Distinguishing features

The protected area usually play an important role in the protection and survival of [1] one or more species of nationally or locally-important flora; [2] one or more species of resident or migratory fauna; and/or [3] their habitats.

The size of the area depends on the needs of the species' habitat but can be relatively small compared with the size of some other protected area categories.

Management approaches will differ. Mere protection may be sufficient to maintain particular habitats and/or species. However, because category IV protected areas only include *part of* an ecosystem, there is likelihood that it may not be self-sustaining and require active management intervention to ensure the survival of specific habitats and/or to meet the requirements of particular species. Three broad management approaches may be suitable:

Protection of natural or semi-natural ecosystem fragment: protection will aim to secure the concerned species and their habitats (which may be temporary, such as migration stop-over places or breeding grounds), with monitoring usually needed to ensure these survive over time. Examples[9] include:

- ✓ Reserve aimed to preserve wild relatives of pineapple and custard apple in Paraguay (WWF and IUCN 1994)
- ✓ Fragments of rainforest conserved to protect threatened lemur species in Madagascar
- ✓ Bogs in managed forests in Finland

Active management of natural or semi-natural ecosystem fragment: management aims here to maintain natural or semi-natural habitats that are either too small or have been too profoundly altered to be self-sustaining. This may be, for instance, because keystone species have disappeared (e.g. if natural herbivores are absent it may be necessary to replace them with domestic livestock or manual removal of vegetation); or because the hydrology of the watershed has been altered necessitating artificial drainage or irrigation; or because remaining habitat fragments are too small to maintain species without active management). Examples include:

- ✓ Forest fragment within a plantation, managed to protect *Coffea macrocarpa* in Mauritius (Dulloo et al 1999)
- ✓ Flower-rich limestone managed by regular scrub removal in the Avon Gorge, UK (Green et al 2000)
- ✓ Planting of food specifically for cranes in regular migration stopping points in Sweden

Active management of culturally-defined ecosystems: management aims here to maintain cultural landscapes where these have, over time, developed a unique associated biodiversity and associated cultural or historical values. Continual intervention is essential in this case because the

[9] Examples here relate to protected areas that might fit the proposed new definition; some but not all of these are currently categorised as IV

ecosystem has been created or at least substantially modified as a result of management. Examples include:

- ✓ Maintenance of culturally-defined grassland habitats in Minorca Biosphere Reserve (Spain) (Borrini-Feyerabend et al 2004)
- ✓ Management of cork oak forests in Tunisia (Moussouris, and Regatto 1999)
- ✓ Maintenance of *Tembawang* fruit gardens in western Borneo

What "management" means in this context: "active management" is taken here to mean that the overall functioning of the ecosystem is being modified by, for instance, halting natural succession, providing supplementary food sources or artificially creating microhabitats in other words something more than removing artificial threats, such as anti-poaching measures or even in most cases removal of invasive species as these activities can and do take place in virtually all protected areas in any of the IUCN categories and are therefore not diagnostic of a particular category.

Whether or not they are actively managed, category IV protected areas will generally be accessible to humans, either as a result of their involvement in management itself and/or through recreational visits.

Challenges

- ✓ Many category IV protected areas by their nature exist in crowded landscapes and seascapes, where human pressure is comparatively greater than in more remote areas, both in terms of potential illegal use and visitor pressure

- ✓ The category IV protected areas that rely on regular management intervention need appropriate resources from the management authority, and can be relatively expensive to maintain unless management is undertaken voluntarily by local communities or other actors (with or without economic interests involved).

- ✓ Because they protect only a sub-ecosystem, the long term future of category IV protected areas remains in doubt, necessitating careful monitoring and an even greater-than-usual emphasis on overall ecosystem approaches and the use of compatible management purposes in other parts of the landscape or seascape.

Role in the landscape / seascape

Category IV protected areas frequently play a role in "plugging the gaps" in conservation mosaics by protecting key species or habitats in ecosystems that have otherwise been substantially altered. They could, for instance, be used to:

- ✓ Protect fragments of remaining habitat and associated species that risk disappearing for a variety of reasons.

- ✓ Secure stepping stones (places for migratory species to feed and rest) or breeding sites for migratory species

- ✓ Provide management strategies in buffer zones around or corridors between more strictly protected areas that are acceptable to local communities and other stakeholders.

- ✓ Maintain those species that have become dependent on cultural landscapes where their original habitats have disappeared or been altered

What makes category IV unique?

Allocation of category is a matter of choice, depending on long-term management objectives, sometimes often with a number of alternative options that could be applied in any one site. The following table outlines some of the main reasons why category IV may be the chosen in specific situations vis-à-vis other categories that pursue similar objectives.

Category IV differs from the other categories in the following ways:

Category Ia	Category IV protected areas are not strictly protected from human interference, nor do they prioritise scientific research, although this may take place as a secondary activity
Category Ib	Category IV protected areas can not be described as "wilderness", as the word is used by IUCN. Many will be subject to management intervention that is inimical to the concept of category Ib wilderness areas; those that remain un-managed are likely to be too small to fulfil the aims of Ib.
Category II	Category IV protected areas conserve fragments of ecosystems, whereas category II protect areas aim to conserve areas that are large enough to be fully functional as ecosystems. Given that very few protected areas are large enough to

	protect entire ecosystems in all their aspects, the distinction between II and IV is partly a matter of objective – i.e. whether the aim is to protect the entire ecosystem (II) or more focused to protect a few key species or habitats (IV).
Category III	The objective of category IV are of more "biological" nature than the ones of category III, more morphologically or culturally oriented
Category V	Category IV protected areas aim often quite specifically to protect identified target species and habitats whereas category V aims to protect overall landscapes and seascapes that have value to biodiversity. Category V protected areas will – generally speaking –be larger than category IV and unequivocally possess socio-cultural characteristics that may be absent in category IV.
Category VI	Management interventions in category IV protected areas are primarily aimed at maintaining species or habitats while in category VI protected areas they are aimed at using resources sustainably. As with category V, category VI protected areas are generally larger than category IV.

Likely impact of the changes

This proposed change in the definition of category IV would probably not necessitate changing the classification of many protected areas that are already under category IV. Some large areas, hardly managed and merely protected under a category IV label may find a better home under category II or V, but this is not a problem related to this new definition. The more interesting changes are likely to come in terms of additional protected areas being classified as IV, for example many small nature reserves that currently fall outside the IUCN classification.

Summary of and reasons for proposed changes

The key change being proposed is to put the focus of management on conservation of particular habitats and species and not to insist that all category IV protected areas require active management intervention. There were two important reasons:

1. To provide a home for a proportion of the protected areas that it is currently difficult to categorise: for instance, the people working on categorising protected areas in Madagascar define category IV through its name in the 1994 guidelines – *habitat/species management area* – to include any (often small) reserves set up to protect particular species: e.g. small woodland fragments to protect lemurs. Many are not managed through intervention, but do not fall obviously into other categories (not being strictly protected, an ecosystem, a natural monument, culturally defined or set up for sustainable use) (Borrini-Feyerabend and Dudley 2005). We came to the opinion that their approach made sense. Similarly, in a 2005 assessment of protected area management effectiveness in Finland, the problem of finding IUCN categories to fit small, unmanaged nature reserves was also identified (Gilligan et al 2005).

2. To address a conceptual anomaly in the objectives: currently category IV is the only category (or at least the most prominent case) where objective is defined partly by the *process* of management rather than the desired end-point. "Management intervention" is not actually an objective, which is instead conservation of species and habitats, with management actions being a *response* to achieve this goal. We felt the category was being artificially constrained and that the clarifying text did not necessarily equate to what the original name implied (or to the 1978 equivalent).

We concluded that the defining issue was less the form of management action as the values of the areas to be managed and the objective of management: and that what was implied was that category IV applied to protected areas that host valuable species and habitats would never be complete, self-sustaining ecosystems. Moreover, when category IV aims explicitly at protecting fractions of ecosystems in order to conserve particular species or habitat types, then management intervention are often necessary. However, the new definition of the category would not eliminate those sites where a decision had been taken to protect a habitat or ecosystem fragment without any further active intervention.

In the proposed new definition of category IV, the primary objective has therefore been modified to stress habitat and species conservation, and the other objectives have been adjusted to reflect this. An additional possible objective has been added reflecting the historical-cultural values of some management systems (for instance coppice woodland). In accordance with this new interpretation, the section on distinguishing features lists three different types of management intervention that might be suitable for category IV.

Note about terminology: we have been using "ecosystem" to imply something larger and more complex than "habitat", implying that an ecosystem would often be composed of many different habitats: for instance the Serengeti ecosystem consists of savannah grassland, various forms of woodland, the Mara River, permanent and temporary pools, kopjes etc. This seems in accord with the interpretation implied by the use of the categories, particularly category II. However, we will need to define these terms, probably in a glossary. Most current definitions do not specify size: for instance the *Concise Oxford Dictionary* says "a biological community of interacting organisms and their physical environment" and other sources define ecosystems as small as ponds.

Thanks to Sue Stolton for comments on an earlier draft and for providing additional examples.

4.6. Category V

Adrian Phillips and Jessica Brown

We have prepared this discussion paper at the request of the WCPA Categories Task Force as part of an exercise that aims to define and describe each of the IUCN categories, to help allocate categories, collect protected area data, and plan protected area systems. The purpose of the discussion papers is to prepare and justify text for the revised guidelines that IUCN aims to produce. A draft of this paper was presented for review and revision at a September 2006 working session of members of the Categories Task Force and the Protected Landscapes Task Force (Catalonia, Spain). This version of the discussion paper incorporates key points coming out of that meeting.

This paper reviews the definition of category V protected areas and their management objectives and distinguishing features. It discusses the challenges facing category V protected areas, their role in the landscape and seascape, and what makes category V unique with respect to other protected area management categories. It proposes a revision to the wording of the 1994 definition to recognize the multiple significant values of category V protected areas, including biological diversity.

In participating in this exercise and responding to the questions for the discussion papers, we note that category V is unique in that it has been the subject of detailed IUCN guidelines developed by the WCPA Protected Landscapes Task Force (Phillips, 2002), which were recently translated into French and Spanish. The guidelines are supported by a special number of Parks (Beresford 2003) on this category and a book on the Protected Landscape Approach. (Brown et al 2003) This published guidance addressed nearly all the points that are covered below, and in far greater detail. Much of the text below therefore has drawn upon these publications, in particular the 2002 Management Guidelines.

Definition

A protected area where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value. Safeguarding the integrity of this interaction is vital to protecting and sustaining the area.[10]

Objectives

Primary objective: To help people protect and sustain important landscapes and their associated values.

Other objectives

The following objectives come from the 1994 publication and should be reviewed:

- ✓ To maintain the harmonious interaction of nature and culture through the protection of landscape and/or seascape and the continuation of traditional land uses, building practices and social and cultural manifestations;
- ✓ To support lifestyles and economic activities which are in harmony with nature and the preservation of the social and cultural fabric of the communities concerned;
- ✓ To maintain the diversity of landscape and habitat, and of associated species and ecosystems;
- ✓ To eliminate where necessary, and thereafter prevent, land uses and activities which are inappropriate in scale and/or character;
- ✓ To provide opportunities for public enjoyment through recreation and tourism appropriate in type and scale to the essential qualities of the areas;
- ✓ To encourage scientific and educational activities which will contribute to the long term well-being of resident populations and to the development of public support for the environmental protection of such areas; and
- ✓ To bring benefits to, and contribute to the welfare of, the local community though the provision of natural products (such as forest and fisheries products) and services (such as clean water or income derived from sustainable forms of tourism).

The following additional objectives for management of Protected Landscapes/Seascapes were added in the 2002 Guidelines, and should be reviewed along with the above:

- ✓ To buffer and link more strictly protected areas to enable conservation at a larger scale;

[10] This represents a revision of the definition provided in the 1994 Guidelines for Protected Area Management Categories ("An area of land or 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"

- ✓ To provide a framework which will underpin community participation in the management of valued landscapes or seascapes and the natural resources and heritage values that they contain;
- ✓ To contribute to bio-regional scale conservation and sustainable development;
- ✓ To encourage the understanding and conservation of the genetic material contained in domesticated crops and livestock;
- ✓ To help ensure that the associative and non-material values of the landscape and traditional land use practices are recognised and respected; and
- ✓ To act as models of sustainability, both for the purposes of the people and the area, and so that lessons can be learnt for wider application.

Distinguishing features

Category V protected areas should have the following *essential* characteristics, which should be of national or international significance:

- ✓ Landscape and/or coastal and island seascape of high and/or distinct scenic quality; Significant associated habitats, and flora and fauna;
- ✓ Evidence that a harmonious interaction between people and nature has endured over time, and still has integrity;
- ✓ Unique or traditional land-use patterns, e.g., as evidenced in human settlements;
- ✓ Valued for the provision of environmental services (e.g., watershed protection);
- ✓ Valued for the sustainable use of natural resources;
- ✓ Unique or traditional social organisations, as evidenced in local customs, livelihoods and beliefs; and
- ✓ Opportunities for public enjoyment through recreation and tourism consistent with life style and economic activities.

The following are *desirable* characteristics:

- ✓ Suitability for scientific research; Important for education;
- ✓ Recognition by artists of all kinds and in cultural traditions (now and in the past);
- ✓ Important for agro-biodiversity (domesticated livestock and crops); and
- ✓ Potential for ecological and /or landscape restoration.

Challenges

Like all categories of protected areas, category V protected areas face a range of challenges. There are underlying ones like lack of political support, the need for community engagement, and financial shortages. There are long term physical threats, like climate change. There are the pressures that arise from burgeoning populations or changing lifestyles. And there are short term challenges, like out-of-date or non-existent management plans or the need to develop staff capacity.

There are also some challenges that are particularly relevant to this category:

- ✓ In landscapes that are shaped by people, what are the limits of acceptable change? For example, should farming or pastoralism be subsidised to protect traditional farm and/or pastoral landscapes and dependent biodiversity? And what kind and scale of economic development is compatible with the aims of the category?

- ✓ Category V's emphasis on the interactions of people and nature over time raises the conceptual question: at what point on the temporal continuum should management focus? And, in an area established to protect values based on traditional management systems, what happens when traditions change?

- ✓ Since social and economic considerations are integral to the concept, how can one define and measures of performance in these sectors? How should these be weighed against for example biodiversity indicators?

- ✓ If people are the stewards of the landscape, how much should decision-making be left to them and how far should a wider public interest prevail when there is conflict?

- ✓ How is category V distinguished from sustainable management in the wider landscape? As an area with exceptional values? As an example of best practice in management?

- ✓ There are still only a few examples of the application of category V in coastal and marine settings where a "protected seascape" approach could be the most appropriate management option.

- ✓ Agrobiodiversity is under higher threat of extinction than wild biodiversity in some regions of the world. What should be the responsibility of Category V in this respect given that the CBD definition reflects the dynamic nature of biodiversity and the continuum of biodiversity, wild and domesticated?

- ✓ Some have criticised category V as not being a 'true' protected area. How can the full value of this approach to the protection of biodiversity, environmental services, cultural and scenic values be demonstrated?

Role in the landscape/seascape

Generally, category V protected areas play an important role in conservation at the landscape scale, particularly as part of a mosaic of protected area designations and conservation mechanisms. A range of geographical relationships between category V and other protected areas is possible, and which grade into one another:

- ✓ In some cases, an extensive category V protected area may include one or more small reserves for strict protection. Many protected areas in Europe exhibit this feature;

- ✓ An important function of some category V protected areas is to act as a buffer around a larger core of a more strictly protected area. As a buffer, a Protected Landscape/Seascape can help ensure that land use activities do not threaten the integrity of the core protected area, which is normally defined as categories I-IV;

- ✓ In some regions, a category V protected area is the most suitable or even the only available option to act as a link between several other protected areas, supporting the ecological benefits of connectivity and strengthening linkages within the broader landscape; and

- ✓ Finally the most ambitious role for Protected Landscapes is to be "building blocks" within large-scale, regional or sub-regional schemes for conservation, helping to create a corridor for wildlife and deliver the benefits of greater connectivity over maybe several hundred kilometres. Examples of this kind of bio-regional planning which include category V areas can be found in many regions of the world. (Bennett 2003 and Bennett and Mulongoy 2006).

Category V offers unique contributions to conservation of biological diversity. In particular:

- ✓ Biodiversity that has evolved in association with cultural management systems can only survive if those management systems are maintained.

- ✓ In addition, traditional systems of management are often associated with the genetic diversity characteristics of agro-biodiversity, which can be conserved only by maintaining those traditional systems.

- ✓ When conservation objectives are to be met over a large area of land (e.g., to maintain habitat over large areas for top predators) and there is a need to accommodate a range of ownership patterns, governance model, and land uses. In such cases of landscape-scale conservation, category V protected areas are uniquely suited to protect portions of the larger landscape fitting the appropriate criteria. Moreover, because category V is a relatively flexible model, in some situations it may be the only politically feasible option.

- ✓ A category V protected area which forms part of such a large-scale scheme should still meet the above criteria of distinguishing features. However, the category V area is clearly of greater strategic value to conservation and sustainable land use when it is part of a region-wide, systematic approach to the protection of biodiversity, and is an element in a mosaic of protected areas that may include a variety of categories.

What makes category V unique?

Allocation of category is a matter of choice, depending on long-term management objectives, sometimes often with a number of alternative options that could be applied in any one site. The following table outlines some of the main reasons why category V is unique.

Category V differs from the other categories in the following ways:	
Category Ia	Human intervention is allowed or necessary. While scientific research is advisable, category V does not prioritise scientific research, though it can offer unique opportunities to study interactions between people and nature.
Category Ib	Category V protected areas cannot be described as "wilderness", as the word is used by IUCN, but we note that this is a cultural construct (as is the term "landscape"). Many will be subject to management intervention that is inimical to the concept of category Ib wilderness areas. These are typically lived-in landscapes where the interaction of people and nature over time defines the special values of this landscape.

Category II	Living, current interaction of people and nature are a critical component of category V protected areas, while category II seeks to minimize human activity in the area in order to allow for "as natural a state as possible." Category V includes the option of continuous human interaction that helps in shaping and maintaining evolving processes that define the landscape character and associated values.
Category III	Category V protected areas encompass broader landscapes and multiple values, whereas category III focuses on specific features and single values. Category III does not emphasize the interactions between humans and nature. Category III emphasizes the monumentality, uniqueness and/or rarity of individual features, whereas these are not required for category V protected areas.
Category IV	Category V aims to protect overall landscapes and seascapes that have value to biodiversity, whereas category IV protected areas aim often quite specifically to protect identified target species and habitats. Category V protected areas will generally speaking be larger than category IV protected areas and typically allow more intervention.
Category VI	While category VI emphasizes human-nature interactions in the present day, Category V reaches into the past, emphasizing the values created by the ongoing interactions of people and nature over time. In category VI the emphasis is on sustainable use of environmental products and services, whereas in category V the emphasis in a broader array of values and on sustainable human interactions with the environment. Category VI specifies 2/3 of the area be undisturbed/pristine, while category V does not make this requirement. Typically, both category V and category VI protected areas occur across larger landscapes than some other categories.

Main differences of categories V and VI (from the guidelines)

	Category V	**Category VI**
Core management philosophy	Maintain harmonious interaction of nature and people	Maintain predominantly natural conditions as basis for sustainable livelihoods
Degree of modification of environment (see Fig.2 overleaf)	Considerable: mainly a lived-in, working landscape	Predominantly natural (or near natural) conditions
Typical dominant land uses	Agriculture, forestry, tourism	Hunting and gathering, grazing, management of natural resources

Case studies

Experience with category V protected areas has been documented in numerous publications since the seminal work by PHC Lucas (1992), including several recent publications of the WCPA Protected Landscapes Task Force (Brown et al 2005, Beresford 2003, Phillips 2002), illustrating the relevance of this category to diverse settings in many regions of the world. World-wide, there are many examples of category V protected areas that overlap with other designations, such as World Heritage Cultural Landscapes, and that encompass a range of governance models, including government-managed and collaboratively managed protected areas, as well as community-conserved areas. Many case-studies illustrate the important role of category V protected areas in conserving biodiversity and a broad array of other natural values, sustaining cultural and intangible values of landscapes, and ensuring connectivity with other categories of protected areas in the context of large-scale landscape conservation. The Task Force has also embarked on a new project to bring out a series of publications illustrating the impact of category V protected areas with respect to different values and benefits.

A few examples of case-studies are listed below:

- ✓ A number of natural parks in Spain provide habitat for large carnivores, such as brown bear (*Ursus arctos*) and wolf (*Canis lupus*). For instance, in Someido Natural Park in Asturias, brown bear habitat is found in mountain valleys with working landscapes that have a history of over 25 centuries of continuous human activity (Mallarach et al, working paper). Connectivity between this category V area and protected areas at bioregional scale (within the Cantabrian Mountains) is important to the value of this habitat, and is being promoted in the context of both international initiatives and European strategies.

- ✓ The Inter-Parks of the French Massif Central includes 8 Natural Regional Parks and one National Park, being one of the largest

interconnected protected areas systems of Europe. The *Parcs naturels régionaux,* which currently cover 12% of mainland France are Category V. Similarly, the Alpine Network of Protected Areas, supported by the Alpine Convention, is a good example of international ecological network including a number of large Category V areas.

- ✓ The Batanes Protected Landscape and Seascape, a category V protected area in the Philippines that encompasses an archipelago of islands, was proposed for designation as a World Heritage Cultural Landscape in 2004. Batanes is a volcanic landscape with dramatic geological features that is rich in biodiversity, including many endemic species, as well as cultural values including archaeological sites and architecture unique to this region (Villalon in Brown et al 2005).

- ✓ The upland meadows of the White Carpathians Landscape Protected Area, a trans-boundary category V site in the Czech Republic and Slovakia, support a rich diversity of threatened and endangered orchid species. To maintain these meadow eco-systems protected area managers and local NGOs are working with local farmers to continue traditional hay-making practices and re-introduce sheep grazing (Kundrata and Huskova in Brown et al 2005).

In the Sacred Valley of the Incas, Peru, *El Parque de la Papa* (Potato Park) is an example of a community-conserved area in which Quechua communities and NGOs are working to maintain the character of this cultural landscape in order to protect its rich biodiversity (including agro-biodiversity and wild biodiversity), habitats (including high mountain native forests, grasslands and wetlands) and cultural sites, while safeguarding traditional knowledge, and strengthening local livelihoods and food systems (Argumedo in Phillips 2002).

- ✓ Brazil's system of protected areas includes the *Area de Proteçao Ambiental* (Environmental Protection Area) or APA, a designation similar to category V. An example is the Cananéia-Iguape-Peruibe APA, which encompasses an important extension of remaining Atlantic Forest, and one of the most productive marine nurseries in the world within an estuary-lagoon system formed by a barrier island. It is an important feeding area for migratory birds and rich in cultural values including archaeological sites and the living cultural heritage of the *caiçaras* people (Lino and Britto de Moraes in Brown et al 2005).

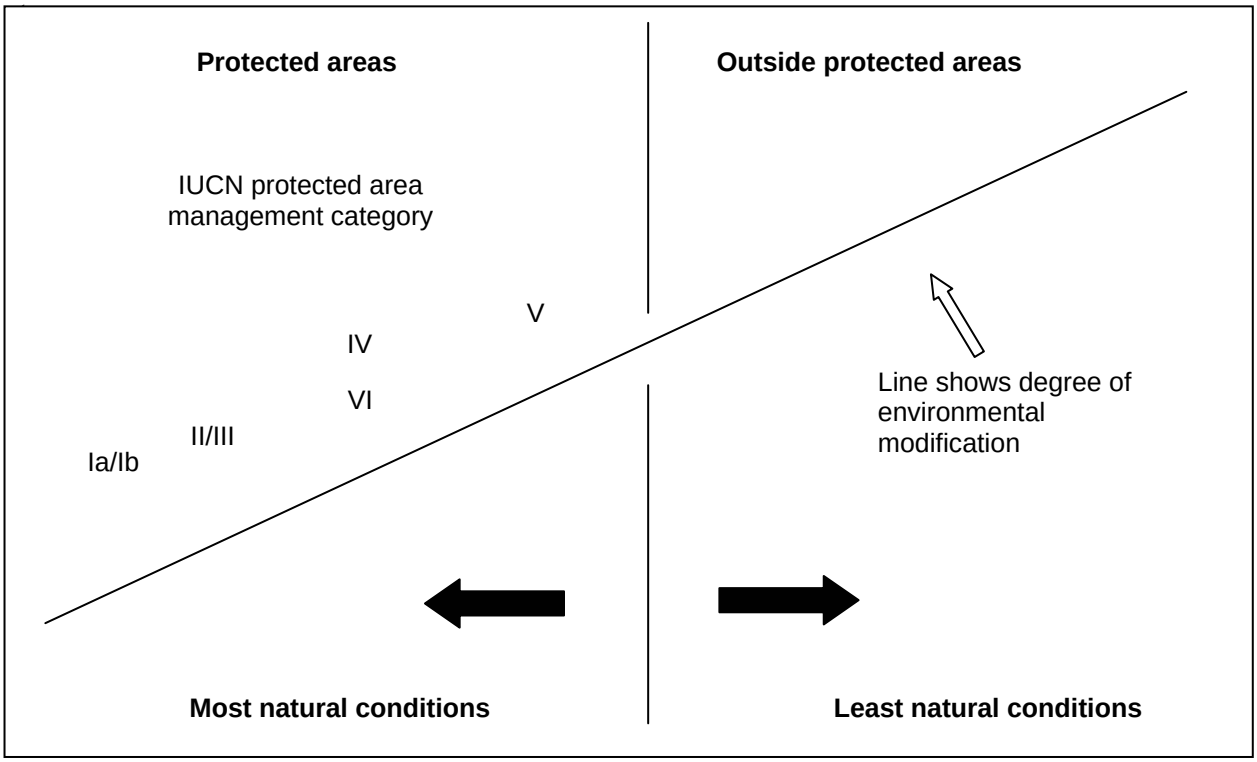


Figure 2: **Naturalness and IUCN protected area categories**

Should the name be retained?

We note that the *Speaking a Common Language* study recommends that the names of the categories be dropped. Dropping the names would signify that the international system of management categories is a way of classifying protected areas by their objectives, not their names. From the specific perspective of category V there is the added benefit that it would enable the wider use of the term "the protected landscape approach" – that is an approach to conservation that links nature, culture and community (note: this is a way of working that is not confined to category V Protected Areas, but includes other designations). On the other hand, in practice, there may continue to be value in having descriptive names associated with each category, particularly in settings where the IUCN category system is not widely known.

Summary of proposed changes

Based on this exercise we consider that the old 1994 guidance is no longer adequate because 1) we have greatly expanded the objectives in the 2002 Management Guidelines (see above), 2) the language in which it is written needs updating to reflect new ideas on biodiversity conservation (including the legally binding definition of biodiversity from the CBD), sustainable development, and community engagement, for example, and 3) the particular emphasis on recreation seems inappropriate and Euro-centric. As category V protected areas are being established and/or recognized in diverse regions of the world, it will be critical that the management guidelines reflect these diverse environmental, cultural and social contexts.

4.7. Category VI

Cláudio C. Maretti[11]

This paper reviews the definition of category VI, keeping the essences of the previous definition, looking for a stronger concept in this new definition, keeping the classification orientation towards objectives, skipping from odd particularities, and trying to clarify some strong linkages and consequences of this approach. The proposed new guidance is outlined first and discussion of the changes follows.

Objectives

Primary objective: To protect natural ecosystems and to promote the sustainable use of natural resources, when the conservation and the sustainable use are mutually beneficial.

To better understand the primary objective

The two elements of this protected area category – protection of natural ecosystems and promotion of the sustainable use – should neither be understood as separated, nor competitive or conflicting. They should be considered as two parts of the same main objective. Only when they are intended to be synergetic this category should apply. The sustainability includes at least the ecological, economic and social (includes cultural) dimensions, as central part of this category definition[12].

Those elements are mutually beneficial, for instance: when local communities (including indigenous peoples) have their livelihoods based upon the natural resources or their cultural reproduction depends on the natural ecosystems; or when the simple presence of local social groups is an ally to the resistance against new-coming more threatening economic activities; or when exist local natural resources management systems that are sustainable, close to that or with room to be improved towards the sustainability.

Those elements should be enough to distinguish the protected areas of this category from other areas of natural resources exploitation (as ordinary forestry or fishing areas, settlements of natural resources gatherers (collectors, extrativists) or farmers, etc.). The nature conservation is above all the superior objective of [nature] protected areas, and intentions or practices of natural resources management just with conservation concerns are not enough. Or, in other terms: if nature conservation is not the major objective, the area would not be a [nature] protected area; and if the nature conservation is not aimed in synergy with the promotion of sustainable use, the (protected) area would not fit in this category.

Possible Complementary Objectives

- ✓ To protect *in situ* biological diversity in its complete perspective, including genetic, species and ecosystems diversity, as well as other natural features, including physical elements, landscapes.
- ✓ To promote sustainable use of natural resources, considering at least its ecological, economic and social dimensions – including social and economic benefits to the local communities when these are included.
- ✓ To facilitate inter-generational security for local communities' livelihoods – therefore to facilitate for them to become sustainable.
- ✓ To collaborate in the aegis of cultural, economic or other social elements or aspects associated to the elements of nature, by direct use or any kind of cultural links, as understood or defined by the different cultural approaches, beliefs, or cosmos-visions (world-visions, cosmologies), either concrete or not.
- ✓ To facilitate the easier realisation of relationships between humankind and nature, and the social understanding of their importance and gamut, including ecological, cultural (mythic, mystic, historical, aesthetic appreciation etc.), economic, and other social dimensions.

[11] With support from Olatz Cases and Ticiana Imbroisi and participation of some 70 other colleagues, on behalf or the IUCN-WCPA Task Force on Protected Area Categories with additional input from other forums, such as RedParques (FAO) (RedParques, FAO. 2006. Seminario-Taller sobre Categoría VI de la UICN: Áreas Protegidas con Recursos Manejados en América Latina. Santiago del Chile, FAO. (CD de documentos de trabajo del proyecto FAO/OAPN, Red Latinoamericana de Cooperación Técnica en Parques Nacionales, otras Áreas Protegidas, Flora y Fauna Silvestres. Oficina Regional de la FAO para América Latina y el Caribe, Santiago, Chile.); Ponce, C. 2006. Documento base para el Foro Electrónico sobre la Categoría VI de la UICN: Área Protegida con Recursos Manejado (10–28 de abril de 2006). Santiago del Chile, FAO. (Documento de trabajo de la Red Latinoamericana de Cooperación Técnica en Parques Nacionales, otras Áreas Protegidas, Flora y Fauna Silvestres. Oficina Regional.)

[12] As this classification is based on objectives, this item should be understood as the intention of the establishment of any protected areas of this category, instead of the previous condition or the current situation in the declaration

- ✓ To contribute to the local (mostly when related to the local communities users depending on the protected natural resources), regional and national sustainable development.

- ✓ To facilitate scientific research and environmental monitoring, mostly when related to the conservation and sustainable use of natural resources.

- ✓ To develop public education and appreciation of the characteristics of nature, or the ecosystems concerned – and possibly the management systems, when not denied by the users.

- ✓ To collaborate in the delivery of benefits to people, mostly local communities, living in or near to the designated protected area.

- ✓ To facilitate recreation and other non-harming social human uses.

To better understand the possible complementary objectives

Cultural linkages or relationships are particularly very relevant to category VI, but could apply to the others as well. However, cultural, economic or other social elements or aspects could be part of the conservation objects of category VI protected areas, mostly when linked to the nature elements, by direct use or any kind of cultural links.

Conservation and social objectives must be compatible, mutually beneficial. On the one hand, the objectives of nature conservation should respect the cultural diversity and eventual needs for social promotion. Particularly important for this category are the natural elements that support the social reproduction and the cultural diversity. On the other hand, whether the pre-existing or potential management systems are traditional or not, the aim of the category VI protected areas is in the search of the complete sustainability. Particularly important for this category is the promotion of cultural behaviours that collaborate to the nature conservation[13].

Local communities are among the most important social actors with possible relation to this protected area category. Whenever is the case, social and economic benefits to the local communities are necessary part of the management objectives, as well as their social (including cultural and economic) reproduction, in order to keep or achieve the sustainability in the use of natural resources.[14]

In the case of existing systems of natural resource management somehow close to the sustainability condition, mostly when related to local communities, their presence may be *per se* already an important element for the nature conservation – even more when the protected areas do not benefit from the good presence of governmental institutions or when more predatory, non-sustainable uses are threatening to take over. Nevertheless, the objective of this category is related to the achievement of ecological, economic and cultural sustainability, and it demands some equilibrium of rights (usually including entitlements and similar concepts) and duties (or responsibilities).

Distinguishing Features

- ✓ The category VI protected areas, different from other, have the sustainable use of natural resources as a means to the nature conservation, together and in synergy with other actions more common to the other categories, as the protection.

- ✓ The category VI protected areas look more towards sets of ecosystems and habitats as conservation objects, together with associated cultural values and natural resources management systems, more than towards individual or particular features or species. Therefore, the size of this category protected areas tends to be larger (rather than smaller).

- ✓ Because of the characteristics of this category, there are strong possibilities for a gamut of systems of protected areas and natural resources management.

Role in the landscape

- ✓ The category VI protected areas are particularly adapted to the application of landscape approaches (Brown et al 2005).

- ✓ This is an appropriate category to the large natural large natural spaces, such as tropical forests, deserts and other arid lands, coastal and high seas, sea mountains, boreal forests, cold lands, etc. (for example the mid Pacific, mid Atlantic, Amazon

[13] Particularly to the protected areas of this category, any creation (selection, design, public consultation) or management actions shall start from the recognition of local communities rights (as also applied to other categories). Nevertheless, this is an issue more related to the national definitions, or international agreements, than to this category specific role in nature conservation. (This is just a matter of scope, and brings no restrictions to the definition, demands and debates on the here mentioned issue.

[14] The term 'local communities' is used here in the sense of people living in local or small places (not cities), with some communal or collective and non-governmental sense in the practical customary decision making processes. They could be village, rural, "traditional" or indigenous peoples (see Maretti, 2002, v. 2, and 2003.)

biome, Congo basin, Siberia, Artic region, Sahara, Mongolia region, Patagonia, etc.) – not only by individual bigger protected areas, but also by taking part in larger ecological networks.

- ✓ Category VI protected areas may be also particularly appropriate to collaborate in the conservation of natural ecosystems when there are none or little areas without use or occupation (most common situation). In that sense, this is an appropriate category to the costal zone area, freshwater ecosystems, river banks, floodplains and other wetlands.

Further guidance for category VI protected areas creation[15]

- ✓ Category VI protected areas may complete the representativeness within the protected areas global system, or sub-global (regional, national, sub-national, local…) sub-systems, as well as protect particular (exceptional, more sensitive, etc.) features.

- ✓ The conservation objects should consider the *in situ* biological diversity in its complete perspective, including genetic, species and ecosystems diversity, but should as well go beyond (beyond the sometimes too strictly defined biodiversity) and include:
  - ✓ other natural features, including physical elements (as geological, paleontological, geomorphologic – including underwater geomorphology, pedologic, or other elements or aspects);
  - ✓ elements of nature as understood or defined by different cultural approaches or beliefs, either concrete or not, including with particular importance when elements from nature are important to local communities' cosmos-visions – with particular interest for this category;
  - ✓ interesting natural resources management systems, from which lessons can be learned to the benefit of the whole system or sub-systems – with particular interest for this category; and
  - ✓ areas under use interest from social groups in which the sustainability of the natural resources use is intended to be promoted – with particular interest for this category; among others.

- ✓ Presence of traditional management systems and demands from local communities are important elements and may be considered in selection and design of category VI protected areas. In that sense, this is an appropriate category to most of the situations in which local communities want to protected part of their lands – including indigenous peoples and other social groups with traditional management systems. Nevertheless, the inclusion of local communities or traditional management systems is not obligatory for a category VI protected area[16].

- ✓ The area selected, the size and the design of a category VI protected area should make possible the carrying capacity for the sustainable use of natural resources, without compromise in the ecological sustainability and auto-regulation, keeping the ecosystems integrity in the long term – with particular attention to the conservation objects. Whenever local communities using the natural resources are included, it also applies to their socio-cultural reproduction.

- ✓ The area selected, the size and the design of a category VI protected area should consider both the internal sustainability, as well as the necessary resilience to face threats from outside unsustainable uses and from global to local climate, environmental and politico-economic changes.

- ✓ There is no obliged minimum size to the category VI – once the definition and principal objective, and their consequences, are met – including resilience to global to local changes and carrying capacity limits. Nevertheless, those protected areas have important potential to collaborate strongly in the conservation of large natural spaces.

- ✓ Although cultural values should apply to, and local communities (including indigenous peoples) could be involved, directly or not, in all protected area categories, the category VI ones consider them also in direct relation with the use of natural resources. Therefore they are more adequate for most cases of consuetudinary or traditional knowledge and practices of natural resources

[15] It is consider here, in a simplified manner, that the protected areas process has two major phases: the creation, including the selection, design, public consultation, etc.), and the management, including the parts of the management cycle, as planning, management, monitoring and evaluation, register and diffusion of lessons learned, re-planning, etc. – and of course include zoning, all the adequate management programmes, etc. (The establishment, as the first steps after the creation of a protected area, can be mentioned in one and other of the two major phases, but is in fact part of the second

[16] Local communities (including indigenous people) demands and interests should be considered in all categories, both in creation (selection, design, public consultation, etc.) and management phases

management systems in relation to natural ecosystems.

- ✓ The protected area should not be chosen where the major objective is simply natural resources exploitation, as ordinary forestry or fishing areas, settlements of natural resources gatherers (collectors, "extrativists") or farmers, etc., even with conservation concerns, whenever this goes in disharmony with major nature conservation objectives.

- ✓ Although participation and collaborative management should apply to all protected area categories, this is even more important and adequate where there is more direct involvement of social actors. The responsible participation is a principle for the creation (selection, design, public consultation, etc.) and management of the category VI protected areas, particularly of the ones involved in the existing or possible use of natural resources, and moreover of the local communities. This may include formal and comprehensive processes of public consultation, public hearing processes and others (not only meetings or single hearing events). For local communities, the processes are better when clear, transparent, simple and understandable (Borrini-Feyerabend 1996).

- ✓ Together with the other categories, the protected areas classified as category VI should keep some flexibility in terms of land (or 'water') tenure, ownership or responsibility – within a protected area or in its buffer zone; previous and post protected area creation –, as well as in relation to the access to the natural resources, recognising the possibility of a diversity of management systems and existence of protected areas on State proprieties, on *lato sensu* private owned lands and on communal lands, as well as a combination of them. However, particularly in the category VI protected areas, the land tenure and rights to access natural resources shall be identified in the selection, design or establishment phases[17].

[17] The term 'land' is here generally understood as a piece of area, possibly composed by terrestrial or aquatic areas. When referred to protected areas it may include as well the aerial space and the underground, particularly when they are important for the conservation objectives, unless expressed differently. Nevertheless, the rights and duties may well be different from terrestrial areas, to freshwater ecosystems to seas, as well as in relation to the aerial space and the underground. Following the same path, the term 'land-use', as here used, always includes the possibility of the use of aquatic systems as well. And the term 'landscape', as here used, may include terrestrial and aquatic systems, either freshwater or marine ones, among others. The private ownership includes NGOs, community, private individuals, companies, etc

Further guidance for category VI protected areas management

More related to (nature) conservation

- ✓ The zoning process is necessary, including a large gamut of restrictions and possibilities, to the organisation of the natural resources uses, according to the ecological and social specificities, in order to prevent compromises to the protected area conservation objectives or to the larger environmental unit where it is located, by the different possible uses.

- ✓ In the category VI protected areas it is always better when a no-take zone is defined, and from the beginning, as part of creation or first steps establishment. But, in the cases when no-take zones are necessary, they should be established with clear criteria, and based on the specific characteristics of ecosystems, natural resources, management systems, kind and magnitude of natural resources uses, social actors involved, etc. It is not possible to consider that no-take zone as a completely and strongly separated part, but the relationship between the sustainable use zones and the no-take zones should be kept. Those zones can be particularly important in the ecological sustainability and for freshwater ecosystems.

- ✓ Environmental units are important for the creation (selection, design etc.) and management (zoning etc.) of protected areas. The environment units, where the protected areas are located, are also important to the design and management of the buffer zone, around the protected area. For the category VI, the environmental units should consider river basins, social and cultural perceptions, the larger land-use planning, besides other criteria.

- ✓ Monitoring and evaluation are important to assure that management is in good way towards the sustainability, including the long-term maintenance of ecosystems health, ecological processes, and other aspects of biological diversity, the sustainability in the management processes of the natural resources exploitation and protected area management effectiveness. Considering the characteristics of this category protected areas, the monitoring and evaluation need to be participatory.

More related to the sustainable use of the natural resources

- ✓ The activities possible to happen within and around (buffer zone) the protected area should be clearly established as soon as possible and should consider the distinctions in terms of ecosystems, specific management systems, and interference of each kind of use.

- ✓ The occupation of the area and the natural resources uses should consider the carrying capacity, to assure both the ecological sustainability and the socio-cultural reproduction whenever local communities using the natural resources are included – with particular attention to the conservation objects.

- ✓ There is no specific limits to be predefined to the kind or volume of natural resource uses – once the definition and principal objective, and their consequences, are met, for it is important to consider in each case the specific characteristics of the ecosystems, natural resources, management systems, kind and magnitude of natural resources uses, and social actors involved.

- ✓ Nevertheless, not any kind of use can happen in the category VI protected areas, for some activities might be against the objectives. Although in a preliminary way, it is possible to say that probably are not adequate within the category VI: large homogeneous plantations (annual or perennial, grasses, shrubs or trees, for grains, fruits, bio-fuel, timber or other products, even when not exotic plants); large planted pastures for cattle ranching or other animals (goat, sheep etc.); industrial and urbane areas; large dams, for hydro-power production or other purposes; high impact mining and oil or gas drilling; intensive commercial or industrial fishing; high impact exploitation of forest products; settlements; etc. Of course some similar activities may be allowed when in small scale, with low impact and adequate and contributing to the main objective, as: small familiar agriculture or livestock, when complementary to the extrativism, small scale fisheries or part of the local communities livelihoods; small scale and low impact forestry and fishing; rural dwelling or habitation areas, within limits, when related to the local communities using the natural resources; etc. As a general rule, settlements are not recommended within category VI protected areas.

- ✓ Existent, interested or potential users of natural resources should be identified. An analysis of social actors (interested, involved or affected) or stakeholders is necessary, for each individual protected area or larger ecological networks or land-use definitions, including: a comprehensive list and a typology of natural resources uses and users, with their characteristics (including strengths and weaknesses), giving particular attention to the local communities (include indigenous peoples); the definition of rights and duties related to the natural resources exploitation, as well as for their monitoring, and the protected area management for all natural resources users; and the identification of needed strategic interventions, as the ones related to the technical improvements on management systems, new techniques, local communities organisation and empowerment, etc.

- ✓ Adequate research should be promoted to bring information and guidance to the establishment and management of category VI protected areas, including for the sustainable use of natural resources, particularly in relation to local communities, and directed to the technology development and diversification related to the management of natural resources and associate production chains.

- ✓ In order to achieve sustainable production, it is necessary to promote population dynamic studies related to the species target of management or impacted by the uses, as well as to elaborate natural resources management plans, adapt the management practices and promote the restoration of degraded populations.

- ✓ Research should also be based on valorisation (and redeeming) of traditional knowledge related to the management of natural resources, followed by comparing with and complementation by scientific knowledge and efforts to fill the knowledge gaps, as needed to achieve the sustainability. No previously established hierarchy among knowledge sets should be established.

- ✓ Parameters for the relationship of agents and objects of research should be established, based on formal and consensual agreements. This could look towards the collaborative research or research-action.

- ✓ Policies to support and promote the sustainable production should be established, but need to

adapt to each protected area, according to the specific ecosystems, social actors involved and management systems.

- ✓ Policies and incentives to promote the development and strengthen the responsible markets to the products coming from the category VI protected areas should be also established.

- ✓ Although adapted to the existent and interested social actors, mostly in the case of local communities, technical and institutional support should be implemented towards the diversification of sustainable economic activities.

- ✓ Processes for clear definition or conflict resolution or management, related to the land tenure and rights to access natural resources, should also be part of the protected area management.

More related to users of natural resources, mostly local communities

- ✓ Management procedures should include the respect to and foresee the maintenance and valorisation of the cultural identity and traditional knowledge and practices related to the sustainable use of natural resources and nature conservation.

- ✓ Management procedures should search adaptive and iterative mechanisms to strengthen the management authority and local communities' capacities to face pressures and threats from unsustainable uses and from global to local climate, environmental and politico-economic changes.

- ✓ Management procedures should respect the social dynamics, its time, social actors affected and processes, in the way to the sustainability.

- ✓ In any action related to the local communities, the need to the previous and informed consent should be observed.

- ✓ In any action related to the access of genetic resources and benefit sharing, definitions of the Convention on Biological Diversity should be applied.

- ✓ It is necessary to recognise, identify or turn clearer the decision processes and accountability for all social actors involved in all natural resources uses.

- ✓ Also in the law enforcement, surveillance and patrolling participatory mechanisms should apply – without bring to the natural resource users, particularly the local communities, to the 'role of police'.

More related to the organizational responsibility

- ✓ Although it is more common that the management authority is placed in a governmental institution, and sometimes even recommended, this is neither obligatory nor necessary. Any kind of *lato sensu* institutions, belonging to the governmental or *lato sensu* private domains[18], can be responsible for the management of protected areas – and in certain cases even the systems or sub-systems of protected areas. In any case, it is always better when the institution is clearly devoted to the conservation objectives, or at least somehow related to that with specific department or section dedicated to the protected areas management[19]. (Applicable to all categories.)

- ✓ In any of the just above mentioned case, the collaborative management is possible and desirable. How this should happen, is defined within specific systems and sub-systems, and should be based upon the specific characteristics or each individual protected areas – ecosystems, natural resources, management systems, kind and magnitude of uses, and social actors, for the category VI. The co-management should be promoted, accepting different models, according to the specific characteristics or each individual protected areas. Particularly in the category VI protected areas, the parity amongst the involved social actors depends on their specific characteristics and responsibility.

- ✓ Collaborative management schemes could include diverse levels of sectors of governments and different governmental institutions.

- ✓ From the beginning, structure, mechanisms and other management needs for full responsible participation and collaborative management should be in place.
- ✓ Whenever existent or involved, the local communities should have a central and more

[18] Among the *lato sensu* private institutions could fit communal, consuetudinary, NGOs, individual or companies related ones

[19] The term 'institution' in its *stricto sensu* may means an organisation, often formally constituted. But in its *lato sensu*, as mostly used here, means the establishment of regular or systematic rules or procedures. Therefore, it may be or not a formally (legally) constituted organisation, for it may also be a customary, consuetudinary, common practice. The relationship amongst social groups and human individuals are usually based on rules, procedures, formal organisations…, or institutions. (Based also on Mearns, 1996; and Claval, 1995, among others.)

important role in any responsible participation or collaborative management process. Mechanisms for their empowerment should be looked for in order to optimise their responsible participation and involvement in the sustainable management of natural resources.

- ✓ Although interesting, and sometimes with much better results, it is neither obligatory nor necessary that a system, or entire sub-systems, is managed by just one institution. It is necessary, though, to exist a clear governance and relationship mechanism for it to be managed as a system.

- ✓ The category VI is a great opportunity for local governments to participate, get involved or take responsibility over the protected areas management. This category VI protected areas to achieve success depend particularly on pro-active position of all levels of governments and different sectors of the civil society.

Challenges

- ✓ The most important challenge of the category VI is to assure that its two elements – protection of natural ecosystems and promotion of the sustainable use – are really two parts of the same main objective, integrated, mutually beneficial.

- ✓ But, even its concept being considered solid and relatively simple, the correct implementation of the category VI protected areas is also a great challenge, because the processes, mechanism and tolls to protected areas creation and management might be sometimes very complex..

- ✓ Therefore, it could be a challenge to keep them in the correct track, avoiding both the easier tendencies, either [i] to the full protection to the whole area (more suitable for other protected area categories), or [ii] to the simple areas of natural resources exploitation (as ordinary forestry or fishing areas, settlements of natural resources gatherers or farmers, etc.) – even when sustainable, or, even, [iii] to the clear and strong separation of the two elements (turning the protected area into a multiple use one).

- ✓ The category VI protected areas to achieve success depend particularly on pro-active position of all levels of governments and different sectors of the civil society. Any authority or institution responsible for them should have good conditions for their creation and management (better than today), including human, social, material and financial resources – particularly considering the need for more intense involvement and the complexity of management of the category VI protected areas.

- ✓ Considering, on the one hand, the strong possibilities to the conservation or large area, and, on the other hand, the responsible participation and collaborative management, in relation with rights and duties, it could be difficult to achieve the proper management for the whole protected area, particularly in terms of surveillance, law enforcement, patrolling, and monitoring.

What makes category IV unique?

Allocation of category is a matter of choice, depending on long-term management objectives, but also on local specific characteristics. The following table outlines some of the main reasons why category VI may be the chosen in specific situations vis-à-vis other categories.

Category VI differs from the other categories in the following ways:

Category Ia	- Category VI protected areas does intend to conserve nature, its ecosystems and their contents and conditions, including species and genetic diversity, but the aim would not be to strictly protected them from human interference.
	- Although scientific research may be consider an important activity in those protected areas, and even promoted, it would be considered a first level activity only when applied to sustainable uses of natural resources, either in order to improve them, or to understand how to minimise the risks over the ecological sustainability.
Category Ib	- Category VI protected areas in certain cases could be considered close to "wilderness", but differ from that in the promotion of sustainable use.
	- They would as well contribute to the maintenance of environmental services, but not only from nature strict preservation, for the sustainable use of natural resources can also contribute to provide the protection of ecosystems, large habitats, and ecological processes.
Category II	- Category VI protected areas aim to conserve ecosystems, as complete as possible to be fully functional, and their contents and conditions, including

species and genetic diversity and the maintenance of environmental services, but differ from the category II in the promotion of sustainable use.

- Recreation can be developed in those areas, but only as a very secondary activity or when they are part of the local communities' reproduction strategies.

Category III

- Category VI protected areas might include the protection of specific natural or cultural features, including species and genetic diversity, among their objectives, whenever the sustainable use of natural resources is also part of the objectives, but they are more oriented to the protection of ecosystems, ecological processes, and maintenance of environmental services through nature protection and promotion of the sustainable use of natural resources.
- Recreation can be developed in those areas, but only as a very secondary activity or when they are part of the local communities reproduction strategies.

Category IV

- Category VI protected areas might include the protection of species and genetic diversity among their objectives, whenever the sustainable use of natural resources is also part of the objectives, but they are more oriented to the protection of ecosystems, ecological processes, and maintenance of environmental services through nature protection and promotion of the sustainable use of natural resources.
- They include the maintenance of environmental services among their objectives, but differ from the category IV in the promotion of sustainable use.
- While category IV protected areas tend to prioritize the active conservation, i.e. the interference or handling on natural elements to promote its reproduction for their preservation, the category VI ones promote the intervention to the exploitation of natural resources, whenever through or promoting sustainable use, in the direct benefit of users.

Category V

- Category VI protected areas might include the protection of species and genetic diversity among their objectives, whenever the sustainable use of natural resources is also part of the objectives.
- Recreation can be developed in those areas, but only as a very secondary activity or when they are part of the local communities reproduction strategies.
- Category VI protected areas is also devoted to maintenance of cultural or traditional attributes, mainly when local communities (including indigenous peoples) are involved, and similarly to category V they are more oriented towards large areas and landscapes, but these are more oriented to the protection of natural ecosystems and ecological processes (therefore to areas usually less modified by human activities), and through (not besides) nature protection and promotion of the sustainable use of natural resources.

Proposed new matrix of management objectives to category VI

Table ***modified*** (reordered, new text in *italic* or removed text struck through) from the "matrix of management objectives and IUCN protected area management categories" (IUCN, 1994), suggesting correction of objective levels and including other elements or aspects.

Management Objective	**VI**
Protection of ecosystems, large habitats, and ecological processes and maintenance of environmental services	1
~~Preservation of species and genetic diversity~~	*2*
Protection of a ecologically representative sample of the biological diversity (ecosystems, species and genetic biodiversity, including the conditions for their maintenance)	*1*
Protection of specific natural *features, including physical elements (as geological, paleontological, geomorphologic (also underwater geomorphology), pedologic, or other elements or aspects),* cultural features *or specific species*	3
Wilderness protection	2
Conserve natural ecosystems and promote the sustainable use, together and in synergy	*1*

Scientific research	*2*
Scientific research when applied to the sustainable use of natural resources, [i] either for their improvement, or for minimising the risks over the ecological sustainability, and [ii] for learning lessons from management systems	*1*
Protected natural elements that support the social reproduction (includes economic conditions) and the cultural diversity, particularly for local communities (including indigenous peoples)	*1*
Protected elements of nature as understood or defined by different cultural approaches, concrete or not, particularly when important to local communities' cosmos-visions	*1*
Education	3
Tourism and recreation	3
Sustainable use of resources from natural ecosystems	1
Promotion of cultural behaviours that collaborate with the nature conservation	*1*
Maintenance of cultural *or* traditional attributes	2
Maintenance of cultural or traditional attributes when on the presence of local communities (including indigenous peoples)	*1*
Conserve the conditions of interesting systems for management of natural resources, from which lessons can be learned	*1*
Protected areas under interest from social groups for use of natural resources in which the sustainability is intended to be promoted	*1*
Protection of landscapes important for its natural or cultural values	*1*

Key: 1 Primary objective
2 Secondary objective
3 Potentially applicable objective

Summary of and reasons for proposed changes

The key change being proposed is to put the focus on the synergy of sustainable use of natural resources and nature conservation, with this looking more towards ecosystems, ecological processes and environmental services – instead of considering the two main elements as "admitted", separated, trying to protect the second from the first.

It is understood that the synergy is not only desirable, but possible. The sustainable use of natural resources can contribute to provide the protection of ecosystems, large habitats, and ecological processes. The protection of natural elements is fundamental to the sustainability of natural resources uses. Within the objective of this category there is the aim to achieve ecological, economic and cultural sustainability.

In several cases, the existence of natural resource management systems (mostly by local communities) may be *per se* already an important element for the nature conservation – particularly when the protected areas does not benefit from the good presence of governmental institutions or when more predatory, non-sustainable uses are threatening to take over.

It has been rejected that the category VI would remain as the only one to receive peculiar treatment, with odd impositions. The suppression of particular odd definitions, or a homogenous treatment to all categories, together with the non division on two or more groups or implying level of importance, would restore the categories systems to its correct position.

Likely impact of the proposed changes

The proposed change in the definition of category VI would probably not necessitate changing the classification of most of protected areas that are already assigned as such.

It could help avoiding the non-correct assumption that some areas for simple natural resources exploitation – as ordinary forestry or fishing areas, settlements of natural resources gatherers or farmers, etc., even with conservation concerns –, whenever does not considering the primary objective of nature conservation and the synergy needed among the two elements.

Hopefully it would contribute also to avoid including among the category VI protected areas the multiple use ones[20]. Therefore, the main change might be in the way this category is seen: becoming clearer that the category VI protected areas is oriented and have potential to the conservation of ecosystems, ecological processes, and landscapes, together with the sustainable use of natural resources (as seen by the experts with strong experience on the category VI)[21].

[20] The multiple use protected areas more properly should be considered through multiple assignment (whenever the definition of the multiple separated objectives and zones is done on an enough higher decision level, usually over the system management authority daily decisions – for instance by presidential decree)

[21] Instead of, as happen sometimes, receiving the protected areas that does not fit in other categories, and sometimes considered as a second level one, with prejudice or not (mostly by whom has no experience on this category)

Notes and recommendations

- ✓ There have been some propositions to consider two sub-categories: VI.a open to all possibilities of sustainable use, according to the definitions and objectives; and VI.b, devoted particularly to the case of local communities (including indigenous peoples). Although the majority of participants of the discussion process supporting this paper tended to the no-division, this was not unanimous all the time, and it could yet be interesting to further explore the possibility of the division just above mentioned.

- ✓ It could be interesting to differentiate the *stricto sensu* [nature] protected areas (i.e. the ones defined with explicit objectives of conservation of nature or natural elements) to the *lato sensu* protected areas when defined mainly for other reasons (social, cultural, economic, historical, touristic, etc.) without explicit and direct interest in nature conservation, even when those last ones collaborate to the ultimate, major goal – nature conservation. Nevertheless, those second ones should be considered integrate to the systems or sub-systems of protected areas whenever possible.

- ✓ It could be interesting to consider the possibility of improve the definition of protected areas. Consider that biological diversity is part of the nature or natural elements or features target for conservation. (The protected areas were created and managed long before the term "biodiversity" was used.) Consider the possibility to include stronger mention to their management in the definition – for more than only the creation, and considering that protected areas need particular, special "legal or other effective means" to their management (in order to clearly distinguish them from more general land-use zoning). And consider that it seems important to differentiate the *stricto sensu* [nature] protected areas to the *lato sensu* protected areas (see above).

- ✓ There are important differences between the protected area management and the management of natural resources – the same for the protected area management plan and natural resource (exploitation) management plan. The first is more general and deals with a larger variety of issues, and the second is more specific and limited, although needing to pay attention to the impacts and other relations with other elements and broader aspects. The first can completely comprise the second or not, but necessarily gives the guidance and limits to it. Therefore, the second should follow the guidelines and be submitted to the surveillance provided by the first. The first is obviously related to the protected area authority or institution, whatever this is, and the second is more likely to be directly done by the natural resource users, within the limits and with the cautions demanded by the first, its authority or the protected area management plan[22].
- ✓ Adequate methods of planning and management of protected areas should be developed to this category. IUCN should develop further guidelines to the creation (selection and design), planning and management of the category VI protected, as well as for conflict resolution, based mostly on case studies (The group that developed this paper is ready to carry on this task).

- ✓ The category VI protected areas are particularly suitable for continental and international areas of land or water, including high-seas, as well as for trans-boundary protected areas (or sets of protected areas in both sides of borders). Experts, possibly from the IUCN Environmental Law Centre or the Commission on Environmental Law, should be consulted in order as to better express this here. (Also applicable to other categories of protected areas.)

- ✓ National implementation and regulations of definitions of the CBD, particularly to access of genetic resources and benefit sharing, is important and related to the sustainability of the category VI protected areas.

- ✓ It is progressively more important to check the correct assignment of the protected areas to the category VI. (Applicable to other categories.) It has been noticed that this is one of the categories with more possibilities of errors in this assignment process. IUCN should present further guidelines to this assignment and checking.

- ✓ Studies are recommended on the viability of using processes of products and services certification as incentives to the sustainable use of natural resources by users related to the category VI protected areas.

[22] In fact, in Latin languages the management of protected areas as currently carried out should be more properly translated by '*gestion*', '*gestión*', etc., keeping '*aménagement*', '*manejo*', etc. to the management of natural resources or active conservation management, i.e., when there is more direct physical interference or handling (based on consultation of several general and specific dictionaries, in English, Spanish, French and Portuguese.)

- ✓ IUCN and other entities, and responsible authorities should be more pro-active in collecting demands from local communities (including indigenous peoples) and negotiating with them to establish or recognise protected areas within their lands.

- ✓ In creation and management of protected areas, particularly category VI, follow the principles of the CBD Ecosystem Approach and their implementation guidelines, the guidelines of the systematic conservation planning, the possibilities of the landscape approaches, and the principles of the adaptive management (Convention on Biological Diversity 2004; Margules and Pressey 2000; Margoluis and Salafskt 1998; Salafsky and Margoluis 1999).

5. Assignment

The summit addressed a wide range of issues relating to how the categories might be applied in practice. There are requests for a more systematic way of assignment so that governments and others have clearer protocols to follow and a proposal for a standard procedure opens this section. One of the key recommendations of the *Speaking a Common Language* project was that the categories should be accompanied by a stronger set of principles and a draft is presented. Next a paper looks at the tricky issue of if and how different zones within an individual protected area can be represented within the category system. Recent and proposed changes to the World Database on Protected Areas are presented and implications for reporting categories to the UNEP World Conservation Monitoring Centre discussed. The WCPA Management Effectiveness Task Force looks at how effectiveness of management might be linked to the category. A brief paper examines how the categories relate to restoration in protected areas, produced with assistance from the Society for Ecological Restoration. Finally two short discussion papers question the role of having particular names linked to each category and looks at options for some system of verification of certification of the categories.

5.1 Process of assigning IUCN protected area categories

Nigel Dudley, Charles Besançon and Roger Crofts

In the past, IUCN categories have been assigned either by governments or by UNEP-WCMC and the process of assignment has never been spelled out. Here we suggest a clear series of steps and present an ideal process for assignment.

Background

Up till now, assignment of categories has generally been left to governments, although the UNEP World Conservation Monitoring Centre has also often taken on this role where no clear directions emerged from state parties. Occasionally assignment has been undertaken for UNEP-WCMC by academics or other specialists. There is some reason to believe that assignment has often been a fairly casual process, left to junior civil servants; where no category was assigned UNEP-WCMC database specialists have had to make judgements often without visiting the site in question. This was not a particular problem while the categories remained as a simple statistical tool. However, it has grown in significance since they have been used for legislative controls – such as the recommendation from the 2000 World Conservation Congress that mining be prohibited in category I-IV protected areas – and as a means of reporting progress to the Convention on Biological Diversity. Many stakeholders have asked for a more transparent and consistent means of assignment: this paper provides some suggestions.

Some principles for assignment

The process outlined in this paper is based on a series of assumptions that are outlined below, relating to responsibility, stakeholder involvement and guarantees of assignment.

- ✓ **Responsibility**: decisions about categories should rest with national governments. Use of the categories is voluntary and no body has the right to impose these. States have final legal decision about the uses of land and water and therefore on the application of management objectives, so it makes sense that states should also decide on the category as well.
- ✓ **Democracy**: nonetheless, IUCN should urge states to consult with relevant stakeholders in assigning categories, particularly when this will have direct impacts on the way that areas will be managed. Proposals for this are outlined below.
- ✓ **Grievance procedure**: many people have suggested that there should be some way in which decisions about categories could be challenged and in principle this seems to be a good idea, noting that decisions about management still usually rest with the state or the land-owner.
- ✓ **Data management**: one option under consideration by UNEP-WCMC is to have a twin database, where alternative information could be added if there is serious disagreement with state data about protected areas, including alternative categories. The implications of this require careful consideration – this issue is outlined in greater detail in a paper on data collection from UNEP-WCMC.
- ✓ **Verification**: another option that IUCN is considering is that the Union develop some form of verification or certification of protected area categories, on a voluntary basis, for state parties (and perhaps even more for private reserves) where the managing authority wants verification that management objectives really do meet the category. This option is discussed in greater detail in a paper by Roger Crofts.

A process for assignment

Assignment should rest on three main elements, with an optional fourth:

- ✓ Good guidance for governments and other protected area authorities
- ✓ An agreed process for assignment
- ✓ A system for challenging categories
- ✓ Optional: a process of verification

The first three will be discussed below – the last is discussed in a separate paper.

Good guidance for governments and other protected area authorities

The basis of using categories should be clear guidance from IUCN, which will be presented as revised guidance for application, to be prepared during 2007 and presented to the World Conservation Congress for ratification in 2008. However, additional guidance may also be required, for example in terms of:

- ✓ **Biomes**: e.g. forests (for which bespoke guidance already exists), marine, freshwater protected areas etc
- ✓ **Categories**: similar to the guidance developed for category V
- ✓ **Regions**: similar to the guidance produced in Europe
- ✓ **Selection tools**: such as the draft selection tool for identifying category and governance type currently being tested

In addition, the guidelines should be produced in many more languages – at least in summary form – and with clearer guidance on protocols for translation.

An agreed process for assignment

How does a government or other body determine whether an area of land or water is truly a protected area as recognised by IUCN, how is a suitable category identified and – a related question – how is this information related to UNEP-WCMC for recording on the World Database on Protected Areas and the *UN List of Protected Areas*?

In many cases the fact that something is protected will already have been decided by the government (although it may be that what is considered to be a protected area in national law does not meet the IUCN definition). Tools also exist or are being developed to help identify the best category for a particular site – suffice to note here that there will often be situations where more than one category might apply and decisions will not be clear cut.

However there will be other cases where decisions are far more complicated – for example if a forest department is trying to decide which of its forest reserves should be recognised as protected areas or when private reserves are trying to attain protected area recognition within national systems.

Figure 2 shows a draft process for assignment that was prepared at a workshop discussing categories in Eastern and Southern Africa, held in Nairobi in October 2005. Although developed particularly for forest reserves, it could apply to any area. It suggests that there are obligations on both protected area agencies and UNEP-WCMC in terms of justifying designation and assignment and in ensuring that these data are adequately recorded.

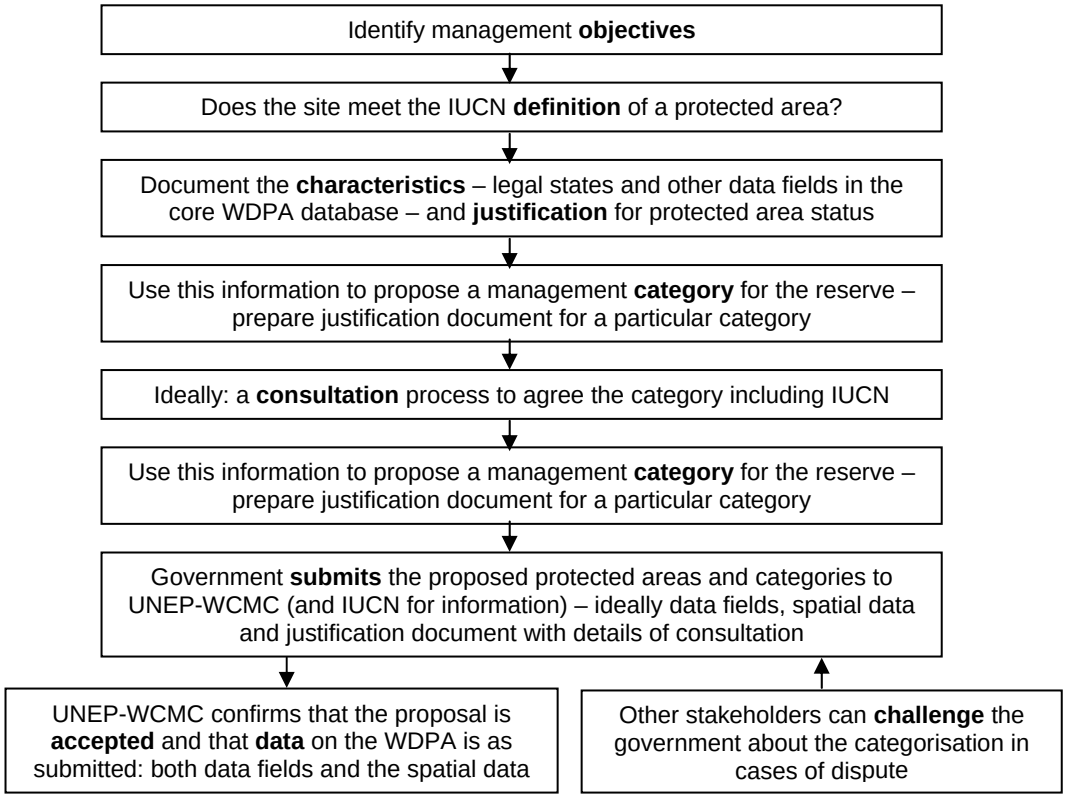


Figure 2: **Draft process for assigning protected area categories**

Ideally, this process should involve many stakeholders, particularly when assignment to a particular category will have impacts on people living in or near the protected area or on other stakeholders. One option would be to have a national task force reviewing data on protected areas and it has been suggested that a national committee for IUCN might be one vehicle for ensuring that this takes place. The extent that stakeholders are involved in these decisions ultimately rests with governments and IUCN can only advise and encourage.

IUCN occasionally offers direct support to governments in assignment of categories

A system for challenging categories

Many stakeholders have demanded a system for challenging categories when these are considered to be incorrectly assigned. Ultimately this may be largely symbolic – in state-run protected areas ultimate decisions about management rest with the state, but such challenges could be important if particular categories have legal or financial implications or for instance if they relate to stated conservation targets.

Most such challenges will take place at a national level. However, there is also an option for IUCN to provide some kind of verification procedure to assist in such cases. This has many implications for the organisation and would need considerable analysis before making any decisions were made.

5.2. Principles underlying the category systems and principles for assignment

Adrian Phillips

Introduction

Some principles underlie the system of protected area management categories, as set forth in 1994. This paper clarifies what these are, and invites the meeting in Almeria to confirm them.

In addition, there is the question of the principles that should underlie the assignment of a category to a protected area. Superficially, assignment can be regarded as a simple technical exercise. But if assignment is to command support and respect, then a number of pre-conditions concerning the process need to be met. This paper invites the meeting in Almeria to discuss these and give guidance as to their relevance and application.

This paper builds on the results of an international workshop that took place in the Cotswolds, England (May, 2004) as part of the *Speaking a Common Language* project. (Bishop et al, 2004, pp.31).

Principles underlying the categories system

The 1994 guidelines set out a number of 'important features' underlying the categories system (IUCN, 1994, pp. 7-10). Using them as a basis, one may identify these principles:

- ✓ That the categories system should be objectives-led – that is the categories should be based on the primary management objectives for each protected area
- ✓ That the categories system should be international – which means that it is developed for use in ***all*** countries.
- ✓ The system needs to be flexible, both in its design and in its application
- ✓ But it also needs to be clear, consistent and logical.
- ✓ And all categories are important.

In reviewing these principles for possible inclusion in the revised guidelines, the Almeria meeting may wish to consider the following points:

Objectives-led – while the value of this seems clear – and indeed was confirmed at the Durban Parks Congress and the Bangkok World Conservation Congress – the system as a whole now has to take on board additional dimensions of protected area categorisation, notably governance and management effectiveness. How should these characteristics of protected areas be represented alongside the objectives-led system? A 'matrix' rather than a one-dimensional way of classifying protected areas seems to be emerging, in which the objectives-led categorisation is only one (albeit the primary) dimension. How can that be presented without losing the focus on the objectives-led system of six categories?

International – it seems essential to retain this global view of the system: it is necessary if it is to perform its many functions, such as facilitating clear communication between countries about protected areas and as a basis for standardised arrangements for data collection. But are all stakeholders able to appreciate the huge variety of circumstances in which the system has to work and make allowances for the individual needs of different countries?

Flexible – because of its international scope, the system needs to be flexible. But how does one balance the need to avoid a rigid, top-down framework that fails to meet national and local needs with the equally important need for an appropriately consistent and rigorous interpretation of the guidelines?

Clear, consistent and logical - the *Speaking a Common Language* project, and the debate that has followed, have highlighted the widespread confusion that exists about the system. But is it the system itself which is confusing, the means by which it is explained (the guidelines) or the degree of understanding which people have of it (a communications issue)?

All categories are important – the system is not intended to be hierarchical (a point made also in the 1978 guidelines). But inevitably some commentators see categories of strict protection (categories I-III, or IV) as superior to the more flexible forms of protection allowed in categories IV-VI. Others see categories IV-VI as offering greater opportunities for protection alongside other human activities. Perhaps

this debate is best resolved by agreeing that ***all categories are needed*** without making a judgement about their respective value. Thus categories I-III are often suitable where high levels of protection can be secured, other categories are appropriate where this is not possible; and while some offer scope for integration of biodiversity protection with community needs, it may not be possible to do that so well in others. Would this not be a more productive way forward than to argue that one category is intrinsically "better" than another?

Principles for assignment of the system of categories

The following principles for assignment are suggested:

- ✓ Participatory
- ✓ Accountable
- ✓ Equitable
- ✓ Transparent
- ✓ Performance-led
- ✓ Part of a continuum of responses
- ✓ Rights-based approach

Taking these in turn, the Almeria meeting may wish to consider these points:

Participatory – basically this means that all stakeholders are able to play their part in the assignment of categories to protected areas. While this may seem to be a distant ideal, it is important to move from a situation where assignment is undertaken by an individual or small group of people without regard to the interests of other stakeholders. One way in which this might be done is to encourage the setting up of national fora (perhaps under the auspices of the IUCN national committees, where these exist) to oversee the assignment process. Such fora could be attended by a wide range of government, community, business, civil society and other interests. One incidental benefit would be to raise understanding of the significance of the system among all stakeholders.

Accountable – those responsible for providing, storing, analysing and publishing data should if necessary be called to account. While this may sound rather aggressive, it is not acceptable in terms of natural justice that those affected by assignment, or having an interest in it, should not be able to make representations to those who make decisions. Again the establishment of a national forum for protected area assignment would help to clarify these points and widen the ownership of the decision.

Equitable – all interests should be equally well served by the system. That means not only professionals and business interests, but also representatives of local and indigenous communities and civil society. All should be treated equally and none given special access to the assignment process.

Transparent – it is a necessary corollary of the above that everyone should be able to see how decisions are made. Once more, this would be easier if there were some kind of national forum for assignment. Meanwhile bodies involved in the process -IUCN, the data base managers at UNEP/WCMC and government focal points - need to be open in explaining how and why decisions are taken.

Performance-led – if the assignment process is to carry credibility, then standards governing the process must be set and pursued. These could be incorporated in the revised guidelines. All the bodies involved in the process should sign up to them and be bound by them.

Part of a continuum of responses – assignment and the collection of data on categories are part of a wider process of data collection on protected areas. They are not a stand alone process and should not be presented or undertaken as such: rather, they are part of the way in which everyone becomes better informed about protected areas.

Rights-based approach – because assignment can affect people in many different ways, the system should operate with due regard to the rights of individuals and groups. This will help to reinforce the principles of equity and transparency set out above.

Finally, if these principles are to be applied, and the whole process is to win respect, there should be shared ownership, inclusiveness and the full involvement of international bodies, national agencies and national and local stakeholders.

5.3. The role of zoning in protected areas and the IUCN categories

Charlie Falzon

What is the issue?

A number of documents and discussion reports have called for clarity and guidance in relation to zones, multiple classifications and protected area categories, since it is not clear how to classify large protected areas containing a range of zones, each with different management objectives. For instance Bishop *et al* (2004) state: *"There is … confusion about whether different zones within a protected area can be assigned to different categories, an issue that has particular relevance to marine protected areas. For instance, many category V or VI marine protected areas contain zones that are more strictly protected than others (no take zones). Although there are precedents for addressing this (e.g. in Australia), many protected area agencies find this issue difficult and are looking for further guidance."*

One of the recommendations at a UNEP-WCMC meeting in Nairobi on protected area categorisation in Africa (October 2005) was for better guidance on zoning (UNEP-WCMC 2005). The report states that

'Although there is no reason why different areas within a protected area cannot be reported as having different categories, it was agreed that there needs to be much more guidance on zoning and categorisation.'

The issue is thus not about when and how to use management zones (other advice is available on this), but when and how zones should be reported as protected areas in their own right according to the IUCN protected area category system.

A working paper from the *Speaking a Common Language* project (Anon 2003) sums up the issue:

'Although the concept of zoning is simple and well understood, the question of when a particular zone is a protected area and when a zone should be counted in statistics relating to the national protected area system, has been the cause of some confusion in relation to the IUCN protected area management categories.'

The 1994 Guidelines: zones and the 75 per cent rule

The 1994 Guidelines (IUCN 1994) on protected area management categories note that zoning is an accepted feature of protected areas and that:

"*Though the primary purposes of management will determine the category to which the area is assigned, management plans will often contain management zones for a variety of purposes which take account of local conditions. However, in order to establish the appropriate category, at least three-quarters and preferably more of the area must be managed for the primary purpose; and the management of the remaining area must not be in conflict with that primary purpose.*'(IUCN 1994)

The word 'conflict' is open to interpretation and can be confusing. Does it exclude an area that is perhaps inconsistent with the main purpose of designation but not necessarily damaging to it? It may be worth asking, for instance, whether a visitor or research centre complex with ranger base and facilities within the boundary of, say a category 1b area is in conflict or whether it is ancillary to the effective management of the area.

Most protected areas are actively managed i.e. some form of intervention is carried out. This may happen spatially (over limited or over more extensive areas) and temporally (for a season regularly or for a limited number of years to allow recovery, or over a regular and extended period of time).

The degree of intervention is a reflection of the category. For instance an area defined as category 1a is likely to be an extensive tract of land or sea in which natural processes occur largely uninterrupted by human agency, whilst category IV implies regular intervention in order to conserve valued species or habitats that would otherwise be lost. However both these categories might exist within areas that have been designated category II or V. Furthermore, some human interventions invariably occur when indigenous people traditionally graze animals or take fodder or wood in category II areas (such as Sagarmatha National Park in Nepal), in which case land may be set aside (or zoned) in such a way that it might qualify as a category V area within a category II area. (In fact Sagarmatha NP has a distinguishable and more recently established buffer zone to the south of the park boundary, which would almost certainly qualify that zone as a category V area, but also contains a number of settlements *within* the park itself – see TRPAP 2006).

The conclusion is that 'nested' or adjacent zones, depending on their status in law or policy and their permanence, can qualify as protected areas in their own right. This is apparently quite straightforward, although it goes without saying that it is critical to avoid double counting in such cases, so that databases do not overstate the area designated.

In some cases, however, no legal or policy framework exists. For instance, Sethupan (2006) states: *'Attempts have been made to interpret "land" to include the sea bordering islands and seashore. These unresolved legal issues put severe constraints on the national parks' ability to regulate economical and recreational activities in seawater area. The parks have for example been unable to properly zone the aquatic areas of the parks … neither the National Park Act nor other relevant acts under the Royal Forest Department, including the National Forest Reserve Act of* (sic) *Wildlife Reserves Act, give the parks any legal authority to create buffer zones surrounding the protected areas. The parks are therefore unable to regulate environmental* (sic) *unfriendly activities taking place in areas neighboring the parks including shrimp farm and resort.'*

In the case of Australia, zoning as both a management tool and as a tool for protected area designation is advanced and enshrined in regulation, so that Chape *et al* (2003) can point out that: *'Some protected areas have more than one IUCN category assigned to them. For example, the vast area of the Great Barrier Reef Marine Park in Australia has been assigned category VI in its entirety, but has also been officially assigned other relevant categories that relate to management zones within the park.'*

A further example of the close regulatory link between zoning and protected area designation can be see in New South Wales' Brigalow and Nandewar Community Conservation Act (NSWCA 2006) that identifies four zones and allocates protected areas entirely contingent with them, thus zone 1 is declared a 'conservation and recreation zone' and labelled 'State Forest reserved as a National Park'; zone 2 is the 'conservation and aboriginal cultural zone' and labelled 'State Forest reserved as Aboriginal Area', and zone 3 is the 'conservation, recreation and mineral extraction zone' and identified as 'State Forest reserved as State Conservation Area'. Zone 4 is the 'forestry, recreation and mineral extraction zone', which has no further label, though it too is nominally state forest in the Act. The 75 per cent rule is not relevant in such cases, since an area that, for instance, comprises 35 per cent plus core zone and less than 65 per cent managed resource zone would effectively become two separate categories Ia/Ib and category V areas. The 75 per cent rule might apply in a situation where the zoning was not permanent, and a management plan might arrange zones in such a way that they threatened the viability of the main management purpose. The 75 per cent rule should therefore relate to the basis on which zones are established.

Furthermore, in assigning relevant parts of a protected area to the different categories, it is important to ensure that each part is 'significant' enough for it to be worth assigning, irrespective of percentage. If a protected area comprises many thousands of hectares of wilderness, with a hectare or two of recreational space or woodland for local use, it might perhaps be seen as somewhat over-diligent to expect those few hectares to be separately notified. On the other hand, an area of some hundreds of hectares that is recognisably set aside for local use and conservation of natural resources, within a wilderness area many hundreds of thousands of hectares in size, may nonetheless be considered as a category VI area. 'Significant' here is therefore taken to mean significant in scale to the landscape and significant in proportion to the 'main' protected area under consideration. This must ultimately be a matter of judgement for the relevant authority.

'Hard' and 'soft' zones

It is perhaps feasible to think of zones as 'hard' or 'soft', so that the former are reported, but not the latter. For instance an area might be described as a 'wildlife conservation zone' – this may be defined in law, and will thus be a permanent or 'hard' zone, and may be assigned to category IV. Within it may be different habitats that may require different levels and different kinds of intervention, and may be identified as zones in management plans. These are 'soft' insofar as they may change over time, and are identified in management plan policies and activities. Similarly the siting of facilities for visitors may change over time.

Protected areas and wider landscapes

Although the focus of the brief appears to relate to the role of zones *within* protected areas, the reality goes beyond this, and is even more dynamic and challenging.

The term 'zone' is increasingly used in rural situations in some laws in a way that it has been used exclusively in urban scenarios, to define both designated protected areas and other land for national land-use planning purposes (e.g. enterprise zones, mixed-used zones, wilderness zones, development zones, settlement zones, etc), as well as identifying areas *within* protected areas for management and other purposes (core zones, rehabilitation zones, buffer zones, recreation zones etc).

Whereas in the past land use law and policy has tended largely to consist of 'protected areas versus the rest', a progressively integrative approach to ecosystem management is emerging, and zoning will feature more and more in such legislation on national planning policies that will incorporate protected areas in a wider landscape.

Some states have a legally defined system of generic park zones, into which protected areas are allocated entirely or in parts according to the zone descriptors. Thailand (Sudara and Yeemin 2006) for instance appears to zones its national parks in a standardised format, thus:

Table 3: **Classification of Zones for Thailand's National Parks**

Symbol	Name	Purpose
IUZ	Intensive Use Zone	Areas that provide centralized visitor and staff service as well as park administration
ORZ	Outdoor Recreation Zone	Areas that provide outdoor opportunities and facilities including nature study
PZ	Primitive Zone	Areas that represent natural environments and serve as water recharge areas. Outdoor recreation is limited
SNRZ	Strict Nature Zone	Areas that consist of special and rare biological sites and also preserved as watershed. Outdoor recreation is limited except for research
RZ	Recovery Zone	Areas that have been degraded or destroyed by ecological recovery is necessary to protect the remaining intact areas *(sic)*

Parks Canada (2007) maintains operating guidelines based on a standard zoning system to which all national parks adhere according to protection needs. It states: *'The national parks zoning system will apply to all land and water areas of national parks, and to other natural areas within the Parks Canada system as appropriate… Any change to a park's zoning constitutes a major amendment to the park management plan and may only be made following an environmental assessment, public notice and public participation in the decision.'*

The concept is therefore very dynamic both temporally (i.e. zones may be permanent or temporary in varying degrees) and spatially (i.e. zones might exist *within* protected areas, they might *coincide exactly* with protected area boundaries, or they might extent *beyond* protected area boundaries).

The technology

It does not require a great expertise in technology, to recognise that there are some obvious shortcomings in usability of the current UNEP/WCMC database, not all of them technical. The two main databases that provide information are the World Database on Protected Areas (WDPA) and the Marine Protected Area (MPA) Global database.

The MPA Global database provides for a range of categories and also asks whether the area is zoned for different purposes. For example, the Great Barrier Reef is shown as comprising 344,400 Ha, of which 115,395 is a no-take zone, and states that the MPA is zoned for different purposes. It also states that the protected area comprises category areas Ia, II, IV and VI, but does not say how zones correspond to these areas, or how much of the overall area is divided into the various categories (WWF, UNEP-WCMC and IUCN undated).

In the case of the Florida Keys, this is shown as comprising 9,845 Ha and is category IV, but provides no information about zoning. However, other sites reveal that a zoning plan exists for the Florida Keys (Florida Keys National Marine Sanctuary undated). More confusingly, only one category is shown on the MPA database (WWF, UNEP-WCMC and IUCN undated), yet the FK website refers to a range of legally designated protected areas (not management zones) that are likely to come under different IUCN categories:

'In addition to the Existing Management Areas in the Keys (national wildlife refuges, state parks, etc.), Wildlife Management Areas, Ecological Reserves, Sanctuary Preservation Areas, and Special-use Areas are established to ensure protection of Sanctuary resources.' (Florida Keys National Marine Sanctuary undated)

The obvious difficulty is that any database is only as good as the quality of the information it provides. There is a challenge to maintain consistent, up to date data, and clearly the responsibility lies with the parties to the presentation and use of that data.

Conclusions

There is a need for a **common language on zones and protected areas**. The emerging scene is such that we perhaps need to think about protected areas as units in a larger landscape, which is increasingly being seen as the management unit. It may thus be worth distinguishing between a

- ✓ **'Landscape management unit'** that refers to landscape scale management incorporating a system of protected areas and other permanently zoned land surrounding or linking them, and a
- ✓ **'Protected area management unit'** that refers to a single protected area

Virtually all protected areas have different management zones within them, whether or not they are formally defined. To avoid creating confusion the recommendations from the Speaking a Common Language report should be considered (Bishop et al 2004), and parts of a single management unit should be separately reported on and accounted only if:

- ✓ *the areas concerned were defined in the primary legislation;*
- ✓ *are clearly defined and mapped; and*
- ✓ *the management aims for the individual parts are unambiguous, allowing assignment to a particular protected area category.'*

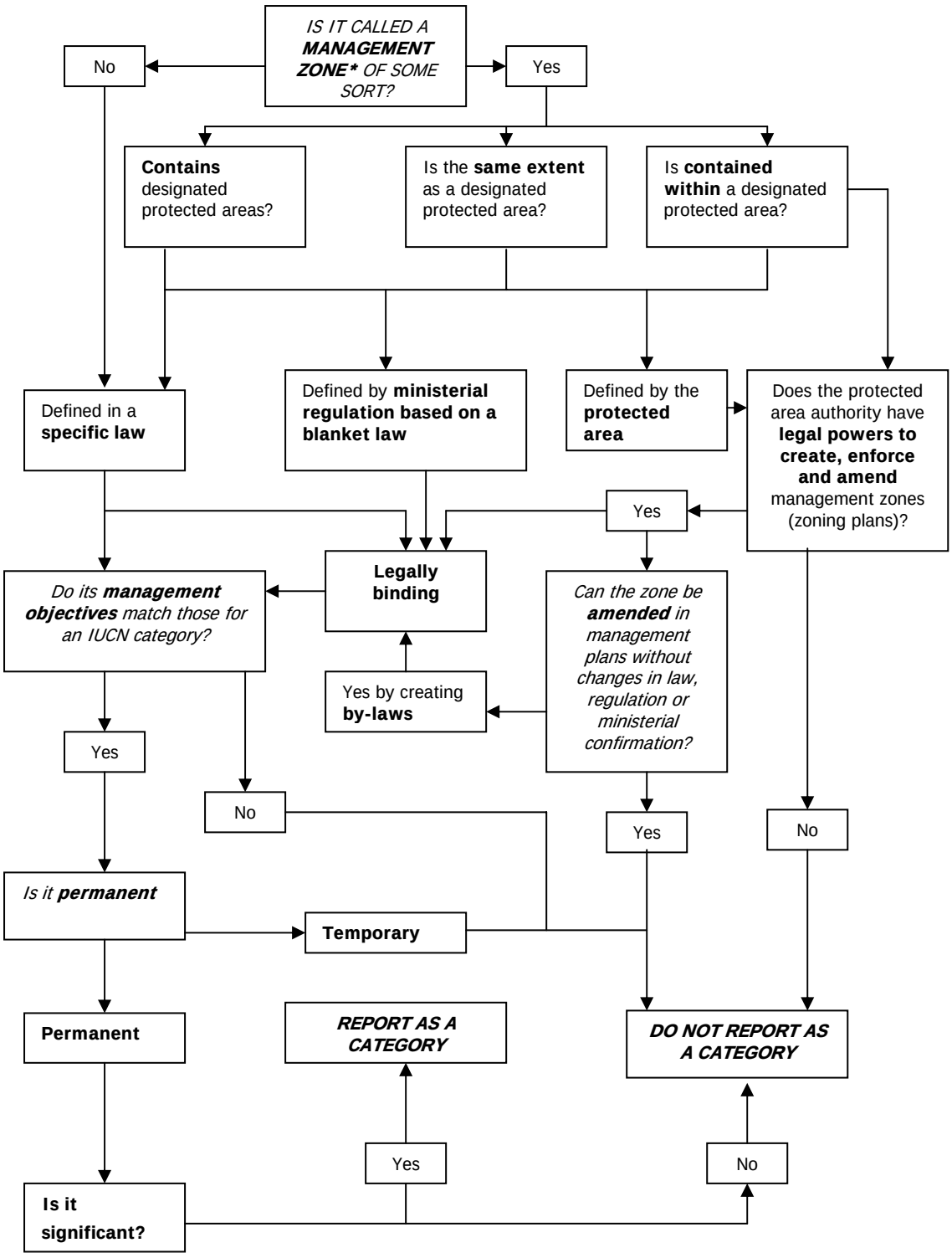
There is a need for **consistent technology**. The WDPA and MPA Global database should harmonise and cross-refer. Where a large protected area is capable of being disaggregated to smaller protected areas, the database should be presented in such a way that these areas could be re-aggregated to present that larger area. Where any of these smaller areas contain management zones these should be identifiable by creating appropriate fields that can be interrogated to reveal underlying data (maps, statistics, objectives etc).

Where there is a legal basis for the designation of protected areas and for the use of management zones, this should be presented in an appropriate field. A good example is in the case of the Florida Keys (Florida Keys National Marine Sanctuary undated):

'The consideration of temporal and geographic zoning to ensure protection of Sanctuary resources is mandated under Section 7 (a) (2) of the Florida Keys National Marine Sanctuary and Protection Act.'

The database should include references and clickable links to relevant protected area authority websites.

Some initial thoughts on points to consider in zoning are outlined in Figure 3 overleaf.



KEY:
Management zone – e.g. buffer zone, wilderness zone, recreation zone, no-take zone, core zone etc.
Protected area authority – Ministerial department, agency, NGO or community institution that is recognised in law
Permanent – inscribed in law, established and recognised, subject to a long-term vision (e.g. core zone for key breeding species), not subject to changes between management plan periods (10 years +)
Temporary – established for management purposes only, temporal (e.g. for a limited period), subject to changes between management plans (10 years –)
Significant – of a recognisable and reasonable scale and/or proportion to the wider landscape

Figure 3: **Zones and IUCN protected area categories**

5.4. IUCN protected area management categories and the World Database on Protected Areas

Charles Besançon, Neil Burgess, Lucy Fish and Liesbeth Renders

This paper outlines the current World Database on Protected Areas (WDPA), how the IUCN protected area definition and its categories fit into the WDPA, the challenges faced by the United Nations Environment Programme - World Conservation Monitoring Centre (UNEP-WCMC) in maintaining and updating the database and the IUCN categories within it, solutions that are proposed to address the challenges, and the use that is made of the WDPA currently. UNEP-WCMC presents the paper for consideration at the IUCN Categories Summit as a part of engaging the broader conservation community in maintaining and improving the WDPA as the definitive source of information on the protected areas of the world, with a well defined and transparent process of data gathering, data management, and reporting.

In particular, this paper calls for the strengthening and capacity development within IUCN-WCPA networks to allow for improved protected area data collection and verification.

What is the WDPA?

Box 3: The WDPA Vision
To create a decentralised, user-friendly, up-to-date system for storing, managing, and reporting on trends in coverage for all the world's protected areas – conforming to best practice techniques and providing a platform that allows for the easy integration of other conservation datasets and user opinion

The WDPA is the largest assembly of data on the world's terrestrial and marine protected areas. A joint project of IUCN and UNEP-WCMC, the database holds spatial and attribute information from governments and NGOs on protected area systems. Increasingly, the WDPA also holds information on private, community and co-managed reserves. The database consists of two elements:

- ✓ **The attribute database**: Currently a relational database that holds a number of non spatial attributes on each protected area. Eight fields form the core of the database. At present, 120,000 sites are found within the attribute database (March 2007).
- ✓ **The GIS database**: This is a spatial database that maps the position and the boundary, where available, of the protected area. For many protected areas the only data in the GIS database is a single point denoting location. Currently 50,734 sites have polygon boundaries, 49,866 sites have a locality but lack polygon boundaries (points only) and 17,643 have no location data at all (March 2007).

The attribute database and the GIS database are linked by a common unique site ID, but not every protected area in the attribute database has a point or polygon in the GIS database[23].

The current WDPA has evolved from paper lists of protected areas from earlier editions of UN Lists and also contains some data from countries of questionable quality. We know, therefore that not all of the data in the WDPA would qualify as protected areas according to the IUCN definition. Improving the data quality is an ongoing issue and will require the assistance of national governments, IUCN and NGOs. Within the WDPA system redevelopment we propose to separate data into distinct areas where it can further interrogated for accuracy, especially in regards to its adherence to the IUCN definition of a protected area (see below).

What is the current UN List of Protected Areas?

Every few years (nominally 4) the United Nations (UN) List of Protected Areas is derived from the WDPA. The UN List is the definitive list of the world's national parks and reserves. It is compiled under the authority of the United Nations, based on resolutions adopted by the UN Economic and Social Council. Historically, criteria for inclusion in the UN list focused on specific definitions of protected areas, a

[23] Much of these data have either been inherited from the UN Lists from many years ago, or are the result of a lack of capacity from many developing countries to map and manage spatial data.

minimum size, and since 1982 the UN list only included those sites with IUCN protected area management categories. In 2003 the composition of the UN list was changed again. At that time all protected areas were included that met the IUCN definition of a protected area, regardless of size and whether or not they have been assigned a category.

The 2003 UN List contains 102,102 protected areas, covering some 18.8 million km² of the world's surface. Marine areas make up 1.64 million km² or 8.7 per cent of that total area protected. Within this total figure there are 68,066 protected areas with IUCN management categories, and 4,633 sites designated under international agreements or conventions e.g. UNESCO World Heritage, Wetlands of International Importance (Ramsar).

Does the WDPA contain additional sites that are not in the UN List of Protected Areas?

Owing to the nature of the data collection process, it is often difficult for UNEP-WCMC to obtain complete datasets from governments of the world. There are numerous reasons for this, but many are the result of inadequate communication networks and capacity to source and provide the relevant data. In these cases official protected area data from a particular country may not be available for the UN List. However, UNEP-WCMC often has datasets provided by NGOs, Universities or experts that are up to date, at higher resolution and mapped in GIS. These datasets may include information on the IUCN protected area management category. UNEP-WCMC maintains these additional datasets, provided by non-official sources, within a broader WDPA.

In addition, there are many thousands of protected areas owned and managed by large NGOs, private agencies and communities that are generally excluded from the government-sourced data in the UN List of protected areas. Nevertheless these sites are managed as protected areas according to the IUCN definition and constitute an important additional means for protecting the biological diversity of the planet. Examples include the 150 nature reserves in the UK managed by the Royal Society for the Protection of Birds (covering 0.5 per cent of the UK land surface) and over 60,702 km² of land in the USA owned and managed by The Nature Conservancy. These data are also included, where available, within the broader WDPA.

As a consequence of the above and other factors, the broader WDPA contains a richer set of data on the worlds protected areas (and other reserves) than is found in the official UN List.

How much data does the WDPA hold on IUCN protected area categories?

The IUCN protected area management category for a protected area is stored as one of the fields in the WDPA attribute database. UNEP-WCMC does not assign IUCN categories to protected areas. These are only added to the database when they have been provided by the data provider. Currently 70, 907 (63.5 per cent) of the protected areas in the WDPA have IUCN categories assigned to them. There is significant variation in the regional distribution of assigning IUCN protected area categories, as outlined in Table 4.

Table 4: **IUCN category assignment in the WDPA (by region)**

WCPA Region[24]	Total Number of sites[25]	Number (and percentage) of designated sites with IUCN category per Region	Number (and percentage) of designated sites with no IUCN category per Region	Number (and percentage) of non-designated sites per WCPA Region
Antarctic	122	118 (96%)	4 (3%)	0
Australia/New Zealand	9663	9185 (95%)	389 (4%)	89 (0.9%)
Brazil	1313	810 (61%)	476 (36%)	27 (2%)
Caribbean	1398	745 (53%)	217 (15%)	436 (31%)
Central America	956	504 (52%)	278 (29%)	174 (18%)
East Asia	3289	2533 (77%)	732 (22%)	24 (18%)

[24] WCPA region as defined prior June 2006

[25] Includes sites that are IUCN defined protected areas and non-IUCN defined protected areas (for example in Africa these data include many 'Forest Reserves')

WCPA Region[24]	Total Number of sites[25]	Number (and percentage) of designated sites with IUCN category per Region	Number (and percentage) of designated sites with no IUCN category per Region	Number (and percentage) of non-designated sites per WCPA Region
Eastern and Southern Africa	4485	1014 (22%)	3060 (68%)	411 (9%)
Europe	46387	25430 (54%)	20656 (44%)	301 (0.6%)
North Africa and Middle East	1777	606 (34%)	705 (39%)	466 (26%)
North America	13920	8327 (59%)	5212 (37%)	381 (2.7%)
North Eurasia	17838	17314 (97%)	399 (2%)	125 (0.7%)
Pacific	657	252 (38%)	159 (24%)	246 (37%)
South America	1662	906 (54%)	546 (32%)	210 (12%)
South Asia	1799	838 (46%)	379 (21%)	582 (32%)
South East Asia	3644	2037 (55%)	832 (22%)	775 (21%)
Western and Central Africa	2756	288 (10%)	2294 (83%)	174 (6.3%)
TOTAL	**111666**	**70907 (63.5%)**	**36338 (32%)**	**4421 (3.9%)**

Thus 32 per cent of designated sites have no IUCN categories. It is suspected that more have been assigned in country, but these data have not yet been made available to UNEP-WCMC.

As can be seen in the table West and Central Africa (10 per cent), Eastern and Southern Africa (22 per cent) and North Africa and the Middle East (34 per cent) have the lowest rates of assigning protected area categories to their networks of sites. To some extent this is because large numbers of African Forest Reserves are included within the dataset, and it remains unclear whether these (or some of these) reserves meet the definition of a protected area or not. Other regions of the world with less than 50 per cent of the sites having IUCN categories assigned are the Pacific (38 per cent) and South Asia (46 per cent).

Current challenges faced by UNEP-WCMC with regard to holding accurate data on the worlds protected areas and their IUCN categories

UNEP-WCMC faces the following challenges in its data holdings that will be addressed in the redevelopment of this system:

1. The WDPA is based on old technology

The current version of the WDPA is based on computer technology and an architecture that was developed in 2000. This means that it is not able to address the questions that are asked of it, and this leads to frustration within UNEP-WCMC and amongst the users and contributors.

2. Difficulties with generating the UN list of protected areas

The UN List of protected areas should only contain the government endorsed information on the protected areas of the world. However, owning to various reasons, this has proven challenging. The main problem is that the current WDPA structure makes it difficult to manage effectively the sources of attribute and GIS information. This means producing outputs, like the UN List, which requires a subset of the database e.g. only governmental sourced data, is difficult and time consuming.

3. Need to improve data gathering

The current WDPA faces a number of challenges in this respect:

a. *Inadequate attribute and GIS data.* Both of these components of the WDPA have problems of missing data fields or GIS polygons.

b. *Incomplete coverage of many types of protected areas.* The broader WDPA database that includes protected areas managed by NGOs, private agencies and communities is significantly less complete than that for government managed reserves. Many of these do not have IUCN categories assigned although they may fulfill the IUCN protected area definition and could have categories applied to them. Gathering and maintaining these datasets is a major challenge for UNEP-WCMC. In addition there are sets of reserves that may fulfil the criteria of protected areas (in part at least) but which are not currently accepted as protected areas and do not have IUCN protected area categories.

Watershed protection forests in the biodiversity hotspots of Africa and elsewhere are some of the best examples of potential protected areas which are within the broader WDPA.

4. Problems of data flow management

The WDPA receives data from all over the world in a variety of formats, projections, languages and schemas that needs comparison with existing information currently in the database, verification against existing information and integration into a standard structure, as shown in figure 4.

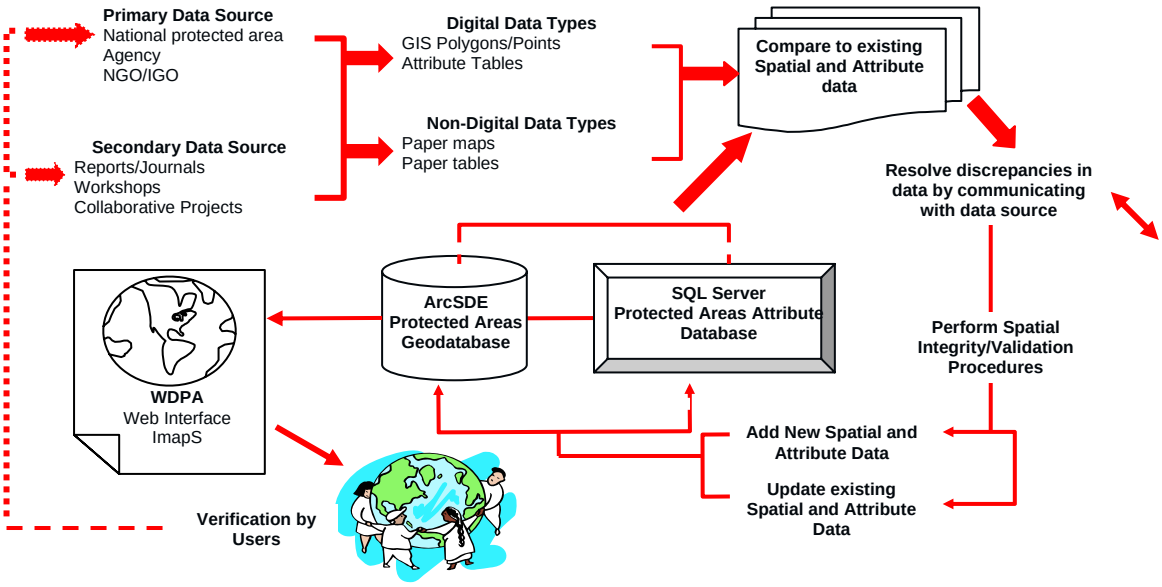


Figure 4: **Overview of current information flow into the WDPA**

5. Problems in the data verification process

The process to verify the data that has been received by UNEP-WCMC through the current WDPA is cumbersome, time consuming and causes many problems. The lack of automation and transparency within this process affects the capacity of UNEP-WCMC to communicate effectively with data providers and data reviewers. This leads to a lack of confidence of the scientific community and data providers in certain aspects of the WDPA and UNEP-WCMC in its ability to deliver on the mandates it is assigned.

6. Problematic assignation of IUCN Protected Area categories

Some of the categories assigned to protected areas in the WDPA are not correct. There are several reasons for this, not least difficulties in interpreting the categories within countries undertaking the exercise. There is no formal mechanism for 'quality control' over the methodology behind IUCN category assignment or for challenging the IUCN category of a given site once it has been added to the WDPA.

7. Problems with the incorporation of governance attributes

UNEP-WCMC has been requested to include elements of protected area governance in the WDPA. A proposal has been made to separate governance into government, co-managed, private, and community. The current WDPA is strongest on the government managed protected areas, and contains only variable data on co-managed, private or community protected areas.

8. How to address issues of management effectiveness

It has been proposed to include scores for management effectiveness of each protected area in the database. At the present time the database does not have attribute fields for this, and there is little data globally on the effectiveness of reserve management, although this is rapidly changing.

9. The lack of a standard format for reporting to conventions

The WDPA is currently used to report the progress towards targets and mandates under the Convention on Biological Diversity, Millennium Development Goals, Commission on Sustainable Development, World Summit on Sustainable Development and the UN List of Protected Areas. Using the current WDPA data structure producing these statistics is time consuming and difficult for the following reasons:

a. Current lack of standardization and coherence between target definitions and methodologies
b. required to perform ratio analysis
c. Current lack of standardization of data delivery formats requested by conventions

10. Challenges in specific biomes

There are some biomes where the establishment of protected areas and the application of criteria have proven problematic. The classic example is in areas beyond national jurisdiction such as the high seas, although similar problems have also been experienced in other habitats – for example in the Antarctic wilderness.

Solutions

The following are proposed as solutions by UNEP-WCMC. An indication is made on whether these are being addressed, or need further input to solve.

1. Redevelopment of the WDPA system

UNEP-WCMC supported by ESRI (technical partner) and the private sector are developing a new WDPA system, moving towards distributed data management and allowing data providers to upload, edit and download protected area data through a web-enabled spatial and aspatial (attribute) database platform.

2. Clear separation of data from governments (UN List) from those provided from other sources (the expanded WDPA)

The database will also maintain a history of changes and complete data sourcing down to the attribute and feature level, where data exist. This will enable UNEP-WCMC to efficiently stratify the data holdings (GIS and attribute data), through its source, in two ways:

a. The official (government provided) protected area data for the nations of the world (UN List). This will include many sites that currently lack an IUCN protected area management category, but where one could be applied.
b. A broader WDPA of sites that meet the criteria for protected areas (or are thought to), but which include data provided by NGOs, communities, private agencies and experts – in addition to that provided by governments. This expanded WDPA will cover many additional sites, and will include many that do not have an IUCN protected area management category, but where one could be applied.

a and b, above can be subdivided into a further set of sites maintained in the WDPA that are managed or governed by governments, communities, private agencies but where it is not clear if they meet the IUCN definition of a protected area. Some of these sites might be listed as protected areas in the future and a relevant IUCN protected area category might then be applied.

One of the intentions of this clear separation and differentiation of processes above is to improve, over time, the data from governments by allowing governments to accept NGO data and give it their own official stamp of approval.

3. Improved data gathering

a. *Sourcing data through governments.* UNEP-WCMC has a worldwide network of contacts in governments that it contacts periodically for updates. Response rates to requests for data are generally low. Many governments in the developing world lack capacity to address the questions raised. UNEP-WCMC proposes to update its network of contacts over the coming year and suggests improved mechanisms for data flow.
b. *Sourcing data through NGOs and others (role of the WDPA consortium).* Leading to the 2003 World Parks Summit considerable assistance was provided to UNEP-WCMC by a consortium of international NGOs and others. The WDPA consortium has been less active during 2004-2007, but it is proposed to reactivate the consortium to seek a significant updating of the broader WDPA by the October 2008 IUCN World Conservation Congress.

3. Improved data flow management

The redeveloped WDPA system (figure 5) will enable the protected areas community (e.g. WCPA), data providers and any interested parties to engage fully with the WDPA.

UNEP-WCMC will call on the experience and knowledge of a) the protected area community to aid the verification of any submitted data, including the IUCN management category and b) the data provider on the progress of their data submission through a systematic assessment process. Interested parties will also be able to comment on the data presented in the WDPA through a Wikipedia-style interactive site.

The technological development of the WDPA system places the responsibility for data quality in the hands of the data provider. Providing UNEP-WCMC with a renewed ability to integrate, manage and serve this information with limited resources (whether manpower or financial) in standardized format via the web or other media.

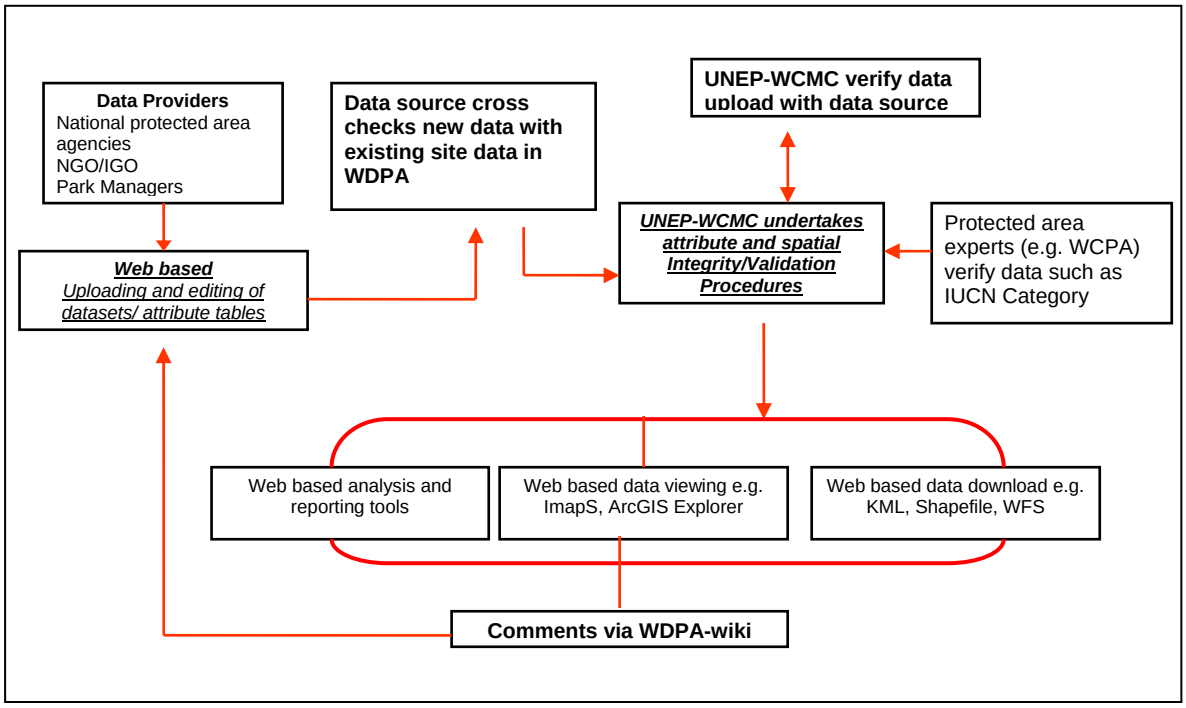


Figure 5: **Overview of the future information flow into the redeveloped WDPA system. The red text highlights the verification process as discussed in solution 5.**

4. Submission and data verification of the WDPA

UNEP-WCMC proposes an automated data submission and verification process , similar to those used in the publishing industry, allowing data providers to track the status of their submitted data's integration into the WDPA as marked by underlined text in figure 5 and outline in more detail below.

1. Data are submitted to UNEP-WCMC and enter a holding area (quarantine area) in the database. The data provider will provide source (metadata) of the data submission including terms of use/data restrictions.
2. An acknowledgement letter/email is sent out be the WDPA to the data provider.
3. The submission goes through a process of verification by UNEP-WCMC, WCPA and other experts. Time limits will be set for the provision of feedback from WCPA and other experts.
4. Enquiries and any comments are sent back to the data provider
5. A revised version is received back from the data provider
6. The revised data are either accepted or rejected and a letter (email) is sent
7. The data provider is asked to confirm the terms of use of this revised dataset and its publication within the finalized WDPA database.
8. Once received, the data are accepted and uploaded into the database
9. Other users can provide comments on data content through a wikipedia style interface.

UNEP-WCMC requests a significant increase in the level of support from existing NGOs and governments to build the capacity of governments and experts from the NGO or academic communities to improve current protected area data and to build processes that result in the delivery of yearly data that improves over time.

UNEP-WCMC regards this verification (including the IUCN category allocation and certification) process as an important priority. However, in order to prevent WCPA becoming a bottleneck in the publication of the latest WDPA information UNEP-WCMC recommends the following:

1. WCPA regional nodes recommend an in-country WCPA member to serve as a focal point for any verification/collaboration on datasets (on a country level) in the WDPA. It is strongly recommended that WCPA seek funds to coordinate this effort as the over-reliance on volunteerism has been shown to be ineffective.

2. The WCPA in-country focal point utilizes the WCPA network to coordinate verification and collaboration on a country level.

3. The WCPA in-country focal point for the WDPA should be given support through IUCN national or regional offices.

4. All requests/enquiries for verification will have a set timeframe. No response within the agreed timeframe will be taken as the reviewer's agreement on the data content.

5. WCPA is not the only form of expert opinion on data verification. Other sources to be used include NGO's, park managers, in-country projects e.g. under the World Bank or Global Environment Facility, universities, etc. The WCPA focal point should be responsible for convening these other groups and developing special processes that are specific to the circumstances in each country.

6. The data source will also be required to verify their own data in response to queries raised by UNEP-WCMC through its standardized in-house verification/data quality procedures (see below).

6. Improved guidelines on how to assign IUCN protected area categories

UNEP-WCMC sees the need for an update of the 1994 IUCN publication that provided countries with guidance on how to apply the protected area categories to their own situation. This is regarded as an urgent priority, IUCN category assignment needs to be a streamlined and coherent process across all countries resulting in data provided to the WDPA is as accurate and complete as it can be.

7. Protected Area governance attributes

UNEP-WCMC fully endorses the *IUCN Protected Area Governance Matrix* - proposed under the governance module of the Categories Summit. This approach has influenced the restructuring of the new WDPA and will allow much more rigorous reporting of community conserved and private protected areas, thus improving the overall quality of the WDPA.

8. Inclusion of information on Management Effectiveness

UNEP-WCMC is currently working closely with IUCN and a partnership of NGOs to collect and report on the management effectiveness of protected areas. UNEP-WCMC proposes that management effectiveness data are linked to the WDPA as an information module with the protected area site code forming the mechanism to link the two data sets.

9. Standardized reporting formats for conventions

UNEP-WCMC believes that the various indicators agreed by conventions provide the framework against which it should provide data on protected areas to conventions and other governmental and intergovernmental processes.

10. Addressing the issue of particular biomes/places

UNEP-WCMC is working with partners around the world to address specific issues posed by maintaining a database of protected areas. For the high seas a special project has been commissioned to address the issue. For areas like the Antarctic which is already protected by the Antarctic Treaty, the relevant bodies need to decide whether the entire area should be deemed a protected area – which would make it by far the largest in the world.

How is WDPA data currently used and how should it be interpreted?

There are a number of uses of the WDPA. Some of these are officially mandated to UNEP-WCMC by other agencies and others are uses within UNEP-WCMC or by its network of collaborators.

Mandated uses of the WDPA

1. UNEP WCMC is mandated to develop the UN List of Protected Areas every 4 years or so. In the past this was a paper product but is now electronic and web-based. The last was produced in 2003 the next will be in 2008 for the IUCN World Conservation Congress. Reporting to the UN list uses the IUCN protected area management category system and summary statistics are presented on how much of the world is protected by the various categories.

2. UNEP-WCMC is also mandated to provide support to a number of international targets and mandates. These include 2010 Biodiversity Indicators – Convention on Biological Diversity, Millennium Development Goals, Biodiversity Coverage Targets under the WSSD and the Global Environment Outlook. Standardization of statistics to answer these targets and mandates will enable UNEP-WCMC to produce these automatically through the new online WDPA data delivery system.

Other uses of the WDPA

1. Since the World Parks Congress in 2003 and with the assistance of the WDPA Consortium, UNEP-WCMC has contributed data to an annual release of the WDPA on CD-Rom and on the web. This broader WDPA includes information on co-managed, private and community reserves. It also includes data on reserves that do not meet the formal definition of a protected area. Data are also provided on the IUCN protected area categories for those reserves which have this attribute in the database.

2. UNEP-WCMC provides data for a number of scientific studies. One of the major uses of the WDPA in recent years has been to undertake what is known as 'gap analyses' where the coverage by protected areas of habitats or species (either all species, or threatened species, or endemic species) is measured with the aim of identifying gaps in the existing network of protected areas and proposing ways to close them. This issue was one of the major themes at the 2003 World Parks Congress and is a major part of the CBD Programme of Work on Protected Areas. Gap analysis studies continue with major NGOs (TNC, BirdLife and WWF) either undertaking or planning to undertake them at the present time. Some of the gap analyses undertaken have only used reserves with IUCN categories I-IV, whereas others have used all the reserves in the database whether or not they have an IUCN category. Given the present lack of categorization for around 50 per cent of the reserves in the database UNEP-WCMC recommends using all categories, including those sites designated but remains uncategorized, for future gap analyses.

   Another major use has been to track how well countries are progressing to achieve the 10 per cent protected area coverage of each biome set by the WSSD, CBD and MDG with regard to terrestrial habitats (by 2010) and marine habitats (2012). As with the work on gap analyses the use of only those reserves that have an IUCN protected area category would tend to bias the results obtained by such an analysis and it is suggested that all protected areas in the WDPA should be used for such assessments of how countries are doing at meeting their global commitments to the establishment of protected area networks.

3. UNEP-WCMC proposes to produce an annual report on the WDPA, summarizing protected area coverage of the world and the number of reserves (and area) that are within various IUCN reserve categories. This document might be expanded to cover the various proposed governance categories of protected areas (government, co-managed, private and community) and information on the effectiveness of management of these various governance categories.

4. UNEP-WCMC also provides data to the private sector for risk assessment and environmental impact analysis. The WDPA is used as a primary source of data by many of the world's larger companies, and they in turn support data collection and management effort by providing monetary resources to UNEP-WCMC. Again, the IUCN categories are used in this process as they inform the private sector of the kinds of uses that might be possible within a given area, for example, oil or gas exploration in a category Ia protected area may be prohibited, but may (depending upon the circumstances) be possible in a protected area category V.

5. The WDPA system redevelopment[26] will also develop and extend the WDPA delivery options available online to all users. Four main online functions are envisaged.

1) Frequently requested statistics automatically available online
   - Numbers of protected areas by country and other breakdown units
   - Total area under protection, by country and other breakdown units
   - Coverage of protected areas (accounting for overlaps)
   - 20 largest protected areas
   - Growth in number of protected areas
   - Growth in protected area coverage over time by numerous factors

   Note: It will be possible to disaggregate these by country, region, IUCN management category, designation/convention, size, date of establishment, marine/terrestrial/freshwater environments. To do this it will be necessary to disaggregate the statistics by data provider/source (e.g. government or other), data quality (e.g. currency or accuracy of information) and frequency of update.

[26] To find more details of this work currently underway, visit http://proteus.unep-wcmc.org

2) WDPA search functionality
- Simple search: basic criteria such as name, designation, country
- Advanced search: criteria such as IUCN protected area management category, designation, region, name, country (multiple), convention, environment (e.g. marine, terrestrial, freshwater)
- Map search: bounding box, zoom to country/region using an interactive map

Search results screen will generate a list of matching answers with a level of relevance, summary and links to 2D (maps) and 3D visualization tools.

3) WDPA protected area visualization tools
- Site summary sheet of information held in the WDPA
- 2D map of site location and boundary (where available)
- 3D map (e.g. Google Earth, ArcGIS Explorer) of site location and boundary (where available)

4) WDPA Download Tools
- Ability to select and download subsets of the database
- Ability to generate online statistics
- Variety of data formats such as KML, shapefiles, excel/dbf tables, PDF

Interpreting WDPA data

Because there are known gaps in data in certain parts of the world, the WDPA should be considered an under-representation of the number and extent of protected areas of the world.

IUCN protected area management category information in the WDPA varies considerably by region and country. It is our strong recommendation at UNEP-WCMC that research incorporating WDPA data utilize all IUCN protected areas rather than those with protected area management category I-IV when doing analysis.

Conclusion

Despite being the only database of its kind and of great value to the wider conservation community the WDPA has often been criticized as cumbersome and inaccurate. It is hoped that this document goes some way to shed light on the challenges and obstacles faced by UNEP-WCMC in its management of the WDPA.

As outlined in this document UNEP-WCMC, and partners, is undertaking complete redevelopment of the WDPA system from its data structure and content to its verification processes and delivery mechanisms. This should allow the WDPA to continue to evolve along side current thinking and developments in the protected area fora, whilst enabling UNEP-WCMC renewed ability to manage such a system and the demands placed upon it. However, without much greater involvement from the international community and especially from IUCN networks (especially WCPA) and NGOs, data quality issues will continue to be a major barrier to this project. It is our sincere hope that new funding mechanisms will be called upon to strengthen the ability of data providers and aggregators to deliver accurate data on a sustainable basis to the WDPA into the future.

As a joint project of IUCN and UNEP-WCMC it is our sincere hope that the participants of the IUCN Categories Summit will recognize the considerable efforts required to deliver this valuable conservation data to the world and will endorse the suggestions (or a variation thereof) asserted in this paper.

5.5. Restoration and protected areas

Nigel Dudley, Daniel Vallauri, Stephanie Mansourian and the Society for Ecological Restoration

The IUCN protected area category is chosen primarily with respect to management objective, i.e. it relates to the aims of management rather than the current status, so that any category can be subject to restoration. However, in practice the category also usually infers something about the protected area status and active restoration practices are probably not suitable for every category of protected area. For example, categorisation with respect to wilderness values is not usually appropriate for an area that will require constant management to maintain these values. In some situations, restoration in a protected area can be a time-limited intervention to undo past damage while in others changes have been so profound that continual intervention will be needed in the long term: this is often the case if invasive species have really become established or if some parts of the ecosystem, such as important species, have disappeared. The following general advice would be:

- ✓ **Restoration through natural processes as a result of protection** (*mis en défens*): for instance restoration of old-growth forest through removal of logging or grazing pressure; re-growth of fish stocks or coral reefs by prevention of over-use; removal of trampling pressure in mountain plant communities – suitable for any category of protected area.
- ✓ **Restoration through time-limited interventions to undo past damage**: one or more interventions to restore damage; for example reintroduction of extirpated species; replanting to hasten forest regeneration; seedling selection; thinning; removal of invasive species – not usually suitable in strictly protected category Ia or Ib protected areas but possible elsewhere.
- ✓ **Restoration as a continual process for biodiversity conservation**: for instance artificial maintenance of water levels in a wetland in a watershed that has undergone major hydrological change; coppicing (regular cutting) of trees to maintain an important cultural forest; using domestic livestock grazing to maintain grassland
- ✓ and control scrub invasion – suitable for categories IV – VI.
- ✓ **Restoration as a continual process for both natural resources and biodiversity**: for instance recovering productivity after soil erosion, providing resources for human well-being – suitable for categories V – VI.

In cases where general habitat destruction has advanced so far that protected areas themselves require substantial restoration, it may be sensible to wait and see how successful restoration projects are before assigning a category.

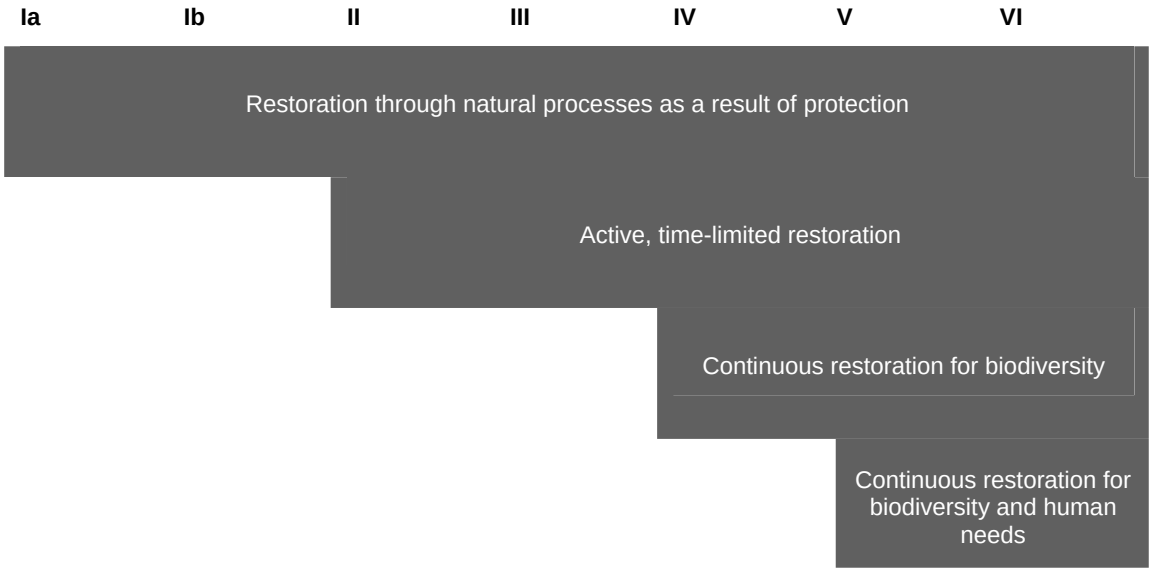


Figure 6: **Relationship between restoration strategies and categories**

5.6. Protected area categories and management effectiveness

Marc Hockings and Nigel Dudley

Introduction

Management effectiveness has increasingly entered the lexicon of protected area managers and policy makers since the issue first came to prominence at the IVth World Parks Congress in Caracas in 1992. Management effectiveness evaluation is defined as the assessment of how well protected areas are being managed – primarily the extent to which they are protecting values and achieving goals and objectives. The term management effectiveness reflects three main 'themes' in protected area management:

- design issues relating to both individual sites and protected area systems;
- adequacy and appropriateness of management systems and processes; and
- delivery of protected area objectives including conservation of values.

Evaluation of management effectiveness is recognised as a vital component of responsive, pro-active protected area management. As well as being an essential tool at local, regional and national level, evaluation also has an increasing international context. Nations are agreeing to report on progress in conservation to their peers through institutions such as the Convention on Biological Diversity (CBD). In the CBD's *Programme of Work on Protected Areas*, nations have committed to develop systems of assessing management effectiveness and to report on 30 per cent of their protected areas by 2010. These and other external demands for information on status and trends in protected area management, combined with the need for more data to meet the practical challenges of managing protected areas, have led to a rapid increase in interest in monitoring and evaluation.

Four major purposes drive evaluation of management effectiveness. It can enable and support an adaptive approach to management, assist in effective resource allocation, promote accountability and transparency and help involve the community and build support for protected areas. The range of evaluation purposes combined with the great diversity of protected areas – with different values and objectives, cultural settings, management regimes and challenges – means that it is not practical to develop a single assessment tool. For this reason, IUCN-WCPA decided to develop a common framework (Hockings et al 2006), which provides a consistent basis for designing assessment systems, gives guidance about what to assess and provides broad criteria for assessment (figure 6). Based on this Framework, different systems using a range of evaluation 'tools' can be used to conduct evaluations at different scales and depths.

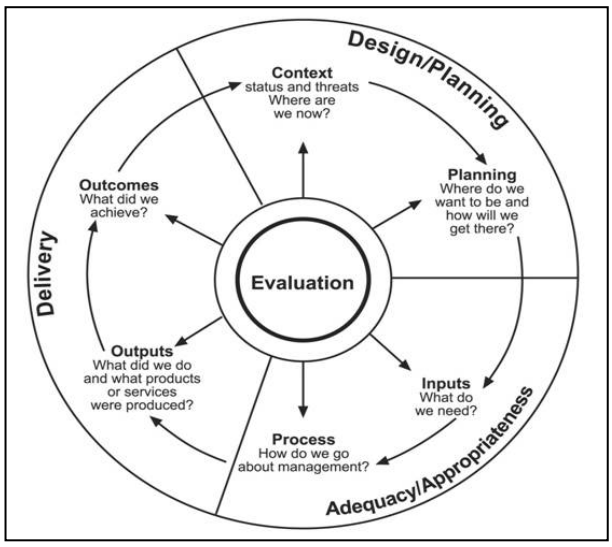


Figure 6: **The WCPA Management Effectiveness Framework**

Issues to be addressed in this paper are:

- the relationship between management effectiveness and protected area category assignment;
- the different types of assessment systems, assessment criteria and their relevance to protected area categories;
- management effectiveness data management and the World Database on Protected Areas (WDPA); and
- a summary current and proposed ME projects relevant to protected area categories.

Relationship between management effectiveness and category assignment

The six categories of protected areas recognised in the IUCN protected area category system are based on the objectives for which these sites are managed.

These objectives are normally specified in relevant legislation or other governance system (e.g. traditional For example, designation as a category II protected area means that the area should be managed primarily for biodiversity conservation with no, or very limited, extractive use of resources. In some cases, managers may have difficulty in managing the site in strict accordance with these objectives. The results of assessments of management effectiveness should not be used as a basis for allocating or changing the category to which a protected area is assigned. So, for example, the appropriate response to an evaluation of management effectiveness that reveals a failure to completely control illegal resource exploitation in a category II protected area is not to change the site to category V (which allows for a level of sustainable resource use) but rather, to seek to adapt management to more effectively achieve the legally specified management objectives.

One form of management evaluation that is of relevance to assignment of protected area categories and that has some similarities to management effectiveness evaluation, is an assessment of management intent. The purpose of such assessments is not to evaluate the effectiveness of management but to clarify the expressed and operationalised objectives for management. Such an approach has been developed by IUCN-WCPA in Europe and has been used to "certify" that a protected area has been assigned to the correct protected area category (according to legislation and governing regulations) and whether the site is being managed in accordance with management objectives relevant to that category. As yet, there is no written methodology and the system is under development.

Assessment systems, assessment criteria and relevance to protected area categories

A large number of systems for assessing management effectiveness have been developed over the past 10-15 years although many of these have been applied in only a few protected areas. In excess of 90 per cent of assessments of sites have been undertaken using systems that were developed around the IUCN-WCPA Framework. This means that they share a common underlying approach and largely common criteria, although the indicators and assessments methods will vary. The systems can be broadly divided into two main types: 1. systems using mainly expert knowledge and 2. systems using monitoring data, stakeholder surveys and other quantitative or qualitative data sources. Some assessment systems combine both approaches to evaluation depending on the aspect of authority for community conserved areas) which provides overall direction for management of the site. management being assessed. The expert knowledge systems generally use a questionnaire approach asking people with detailed knowledge of the protected area and its management to rate various aspects of management or to nominate characteristics of the site such as the nature and significance of protected area values and threats. These assessments may be supported by a considerable knowledge base consisting of the results of monitoring and research that has been carried out at the site. This approach to assessment is often applied when assessing management of large numbers of protected areas, often all of the protected areas in a country, as it is quicker and less resource intensive than the monitoring approach.

The choice of evaluation approach is affected by the purpose of evaluation, level of resources available to undertake the evaluation and the number of sites involved rather than the particular category of protected area being assessed. However the criteria and indicators that are used in undertaking the evaluation may be affected by the category of the site(s). For example, criteria relating to sustainability of resource use should be prominent in assessments of category V and VI sites but less important in categories I to IV, assessments of category Ia and II sites could be expected to pay particular attention to assessing quality and outcomes of management of biodiversity, while assessment of wilderness management should figure prominently in assessing category Ib sites. Many evaluation systems provide for this diversity by providing for development of specific criteria and indicators to match the characteristics and needs of the sites. Other systems seek to cover the key issues relevant to all categories of protected areas but provide for certain criteria and indicators to be omitted from the assessment where these are not relevant to the protected area being assessed. In most cases, this omission would be on the basis that the particular aspect of management is not relevant to the IUCN category of the site.

Management Effectiveness data and data management

As management effectiveness evaluations are a relatively recent innovation in protected area management, issues of managing the data arising from these assessments are still be identified and addressed. Data from assessments is of most direct interest to the organisation involved in managing the protected area or in sponsoring the evaluation study. These organisations do have internal data management issues to address, especially where the number of sites is large

or repeat assessments are being collected over time. However these issues are tractable with reasonable database design and management. There is growing interest from a number of organisations in analysing data across systems. Such regional or global analysis can help identify common threats, patterns in strength and weaknesses in management. This type of information can be used to help make more effective decisions for prioritisation of effort, capacity building and policy development.

The variation in assessment systems, criteria and indicators used in evaluating management effectiveness mean that combining data from different systems is not a straight forward matter. The IUCN-WCPA Framework with its structure of six main elements of evaluation and a broadly common set of criteria for assessment does provide a means of harmonising data from different systems. One approach to addressing this issue that is currently being investigated is the development of a common reporting format and minimum data set for protected area management effectiveness information. The common reporting format would use the IUCN-WCPA Framework elements, criteria and indicators as a means of structuring data and a set of rules for "translating" the results from different assessment systems into a common format. In most instances, this common format would be a 4-point ordinal scale of management performance.

Common reporting format and minimum data set

Ideas on a common reporting format and minimum data set for management effectiveness information were discussed at a meeting of NGOs and key international institutions interested in this issue in mid 2006. A proposal for such a system was developed and is being trialled. The components of the minimum data set are structured according to the IUCN-WCPA Framework (see table 5).

All elements of the Framework are represented except for Output measures which are more relevant at the local level.

Table 5: **Minimum proposed data set for management effectiveness**

Minimum Data Set		explanation
CONTEXT	Threat	degree of threat, (values, condition)
	Values and significance	key targets - what needs to be conserved
	Enabling environment	suitable conditions external to park
PLANNING	Legal status / land tenure	security of legal status and tenure rights
	protected area site design	appropriateness of the design
	Management plan	adequacy of management plan
	Biodiversity objectives	clarity of protected area objectives (for biodiversity)
	Boundary demarcation	adequacy of boundary demarcation
INPUTS	Staffing	adequacy of staffing including skills and training and motivation
	Funding	adequacy of funding
	Infrastructure/equipment	adequacy of infrastructure and equipment
	Information/inventory	adequacy of information and inventory for planning and decision making
PROCESSES	Governance and capacity	adequacy of administrative processes
	Law enforcement	adequacy of administrative processes
	Visitor/recreation mgmt	adequate and appropriate visitor management
	Stakeholder relations	processes to relate to stakeholders including community involvement in management
	Natural resource management	processes to manage natural resources (includes restoration, pest and fire management etc)
	Biodiversity/threat monitoring	monitoring of biodiversity, other values, threats

Minimum Data Set		explanation
OUTCOMES	Condition assessment (all values)	state of nominated targets/ values
	Threats status (?)	(to be resolved if it is an Outcome measure)
	Management plan objectives achieved	achievement of other objectives such as improved community relations?

Issues and sensitivities in relation to sharing ME data

There is no doubt that information on effectiveness of management of protected areas is potentially very politically sensitive. The development of a common reporting format and minimum data set may help to overcome these sensitivities as full results of data from site assessments is not proposed to be stored in global datasets. Investigation of other mechanisms to restrict access to data and analyse and report only at regional levels may help address these sensitivities. It is likely that open access to data will be restricted for many sites in the foreseeable future. The most important means of overcoming this sensitivity, however, is likely to be responsible use of the data in global datasets so that Agencies develop confidence that data will not be used to "attack" agencies and governments but will be used to support enhanced management, more effective policy development and more effective priority setting.

Potential to link other protected area data to basic dataset in WDPA

Management effectiveness data could be maintained in a database linked to the WDPA by the unique protected area code used to identify sites in WDPA. This arrangement would have significant advantages in terms of:

- ✓ security and control of access to data in the ME database;
- ✓ general protected area data and spatial data held in WDPA need not be stored separately in the ME database;
- ✓ consistency of protected area identification with WDPA.

However the current problems in the WDPA in terms of accuracy and completeness of protected area information could create some problems in the short term.

Current and proposed ME projects relevant to protected area categories

Global ME project and potential to analyse trends in ME at regional and global scales

The global study into management effectiveness evaluation of protected areas is an initiative co-funded by the University of Queensland, The Nature Conservancy and Worldwide Fund for Nature, under the auspices of the IUCN World Commission for Protected Areas, and in cooperation with other organisations including the World Bank, Global Environment Fund and UNEP/ World Conservation Monitoring Centre.

The goal of the study is to produce a global review of management effectiveness evaluations of protected areas. The project will assemble and analyse all studies of management effectiveness that can be located around the world (drawing on information from WCPA members, NGO and government networks). This project was developed in response to the World Parks Congress Recommendation 5.18; Durban Action Plan Targets 5-7 and; the specific goals and activities outlined in the Convention on Biological Diversity COP7 Protected Areas Programme of Work. Information from this analysis will help meet or inform action in relation to four of the targets within the CBD Protected Areas Programme of Work.

The objectives of the study are:

1) Collection and collation of available information from assessment systems, individual park assessments and other evaluations of management effectiveness that have been undertaken in protected areas.
2) Analysis of dataset to gain an understanding of most appropriate methodologies for different situations and protected area systems.
3) Analysis to gain as wide a picture as possible of status of parks, key threats, factors influencing effectiveness of management and necessary changes to management strategies and approaches.
4) Analysis of most useful and commonly used indicators for assessing management effectiveness of protected areas (i.e. what indicators are most reliable predictors of overall effectiveness)
5) Development of a system for integration of management effectiveness information into the World Database on Protected Areas.

The project commenced in mid 2005 and will continue until late 2007 (and possibly beyond). A related project that is currently being considered for GEF funding as part of the 2010 Biodiversity Indicators Partnership Project would extend the global study by seeking to

both extend coverage of ME data to a wider range of protected areas and to examine the potential to develop an general indicator (or small set of related indicators) to report on management effectiveness.

Examining effectiveness of management of different protected area categories

Some stakeholders have also suggested that categories could be assessed for effectiveness of management (rather than accuracy with which a particular category is applied).

This could be approached in a number of ways:

- ✓ New or existing assessment systems could be tailored to particular categories, for example by changing the scope of assessment depending on which particular category was being considered, although it is not yet clear if this is necessary or desirable.

- ✓ Assessment could consider whether the objectives of the category are being met effectively, with the implication being that a category might be changed if management seemed more suited to a different category. There is some support for this approach but also some clear dangers: illegal logging could change the ecology of a park to the extent that it was re-categorized as V and then became open to mining. Such scenarios are extremely plausible and for instance arson has frequently been used to change the status of forests and thus open them for exploitation in countries as far apart as Spain and Indonesia.

- ✓ Some compromise between these two may be possible, by for instance giving greater emphasis to the category and associated management objectives when making an assessment without going as far as questioning category choice at the level of effectiveness evaluation.

Recommendations

IUCN is committed to continuing the process of examining options for certification within conservation in general, as recommended by the Vth World Parks Congress. With respect to the categories, different approaches are needed in the cases of ensuring that the "correct" category has been assigned and in assessing how effectively this has been applied in practice.

- ✓ **Certification of the application of IUCN categories**

WCPA Europe already has a project in place to develop certification of categories and has completed one inspection. Before this system is further developed, we recommend further research is carried out with respect to several issues:

- The scale of **demand** for this service both inside Europe and beyond
- The most effective and convincing **process** for certification
- Detailed **criteria and indicators** for assessing each category (this need to be developed when the new guidelines are published)
- A legal structure for a certification system
- Assessment of costs, benefits and risks for IUCN to be involved

- ✓ **Assessment of effectiveness of management in various categories**

This should be seen in context of more general IUCN work on certification, and should include at this stage a thorough review of whether or not there is a need and a demand for assessment tailored to particular categories.

5.7 Names of protected areas

Nigel Dudley and Adrian Phillips

Introduction

Proposal: to eliminate the names from the definition of the categories; these would instead be identified simply by (1) the numbers and (2) accompanying descriptions

Background: removal of the names from the categories was indicated as desirable in Recommendation 19 at the Vth World Parks Congress (2003). Recommendation 19, paragraph 5[d] suggested that IUCN "Considers removing generic names of protected areas from the category system, as these may have different meanings in different countries, and using only management objectives and numbers for each category" This recommendation was referred to positively in Resolution 54 of III IUCN World Conservation Congress.

Reasons for removing the names

1) **Reducing confusion**: A major source of confusion about protected areas arises because the same name (e.g. national park) may be used in different countries to describe areas that are managed in different ways; and, conversely, areas in different countries that are given different names at the national level may be managed for the same purpose. One of the main reasons for adopting the categories was to reduce such confusion between countries when dealing with different types of protected areas. To use names at the international level may even increase the confusion. However, the first categories system (adopted by IUCN in 1978) gave both a number and a name to each international category. When some of the participants at the categories workshop at the 1992 Caracas World Parks Congress proposed removing the names, this was strongly opposed by others. The proposal for change lacked sufficient support and so the names were retained alongside the numbers in the system adopted in 1994. But in many ways this may have reduced the effectiveness of the categories in fulfilling one of their primary functions. This is most apparent in connection with category II/National Park, because 'national parks' in many parts of the world are not managed as category II protected areas. Table 6 overleaf (from the *Speaking a Common Language* report), summarises the problem.

2) **Addressing ideological objections**: some of the names used create problems for some stakeholders. The strongest example is "wilderness area", which holds negative connotations for some stakeholders, particular indigenous peoples who believe that the term "wilderness", with its connotations of "untouched nature," downgrade or ignore their own long-term management impacts on ecosystems – and indeed may even appear to imply the desirability of their eviction and exclusion from such areas.

3) **Emphasising the international nature of the system:** the IUCN categories system is an international one, designed for use by all nations. Incorporating within it descriptors of protected area types that are drawn from national contexts, but not applied universally, may reduce its global appeal. A more "neutral" way of describing different types of protected areas is more in tune with the system's international status and use.

Reasons for keeping the names

1) **Usefulness as a campaigning tool**: the Danish Committee for IUCN has argued strongly that the named areas such as "national park" provide a powerful concept to strive for that would be lost with mere numbers, and fear that a loss of the names at the international level would undermine their own particular campaign to create national parks in Denmark.

2) **Maintaining commitment to core values**: there is a (probably) quite small but certainly very passionate group of IUCN members who believe that names like "national park" and "wilderness area" are important to retain for what amounts to philosophical reasons. They feel that to remove them from the IUCN international system implies a weakening of the commitment to the concepts that such names represent. They have promised to argue strongly against any change.

Way forward

There seems to be little point in examining compromises, such as changing some of the names, because the names that enjoy the strongest support in some circles (*national park* and *wilderness*) are precisely

those that others would particularly like to eliminate. Nor is this by any means the most critical issue to be addressed by the categories task force or the new guidelines. It seems unlikely that we will reach consensus, but it is important to gauge what the majority of IUCN members feel about this issue and act accordingly.

Table 6: **Examples of protected areas called "national park" in different IUCN categories**

Category	Name	Location	Size (ha)	Date
Ia	Dipperu National Park	Australia	11,100	1969
II	Guanecaste National Park	Costa Rica	32,512	1991
III	Yozgat Camligi National Park	Turkey	264	1988
IV	Pallas Ounastunturi National Park	Finland	49,600	1938
V	Snowdonia National Park	Wales, UK	214,200	1954
VI	Expedition National Park	Australia	2930	1994

5.8 Verification and certification of protected areas using the IUCN management categories system

Roger Crofts

Purpose of issues paper

To obtain participants' views on proposals for a WCPA formal role in the Verification and possible Certification of protected areas with respect to the IUCN management categories, for use on the WDPA and in the UN *List of Protected Areas*.

Issues to be considered

1. In principle whether WCPA should play a formal role in the Verification of assignment of protected areas to the IUCN categories for use on the WDPA and the UN List.
2. To agree on the approach to be adopted, including interaction with data providing authorities.
3. To consider the various methods of assignment to category.
4. To advise on the approach to the appointment and training of WCPA members for undertaking assignment to categories.
5. To agree on the distinction between verification of protected areas to the IUCN management categories and the evaluation of management effectiveness.
6. To advise on the possibility of formal Certification of protected areas to the IUCN category system.
7. To advise on any other matters pertinent to the development of WCPA's role in the Verification and Certification of protected areas using the category system.

The principle of WCPA verification of protected areas

As the significance of particular protected area categories increases, the need for accurate and widely accepted assignment processes also grows. Specific requests for IUCN to verify protected area categories in Europe in recent years has led to the development of a preliminary Verification and Certification system. An early version has already been tested in the National Parks of Austria.

✓ **Verification of what?**

It is important to distinguish between Verification of Management Effectiveness and Verification of Establishment. Using the Hockings model for management effectiveness (Hockings et al, 2006) and the associated six stage process for assessment of management effectiveness; the establishment approach (i.e. of assignment of categories) requires assessment of **design** and **planning** and also a judgement on whether proposed **outputs** are realistic and adequate (although does not measure actual outputs), but does not consider **process** or **inputs**, nor does it require the adequacy and appropriateness or **outcomes** elements to be assessed.

Should Verification be at protected area system level or for individual protected areas? In principle it could be for the latter but in practice data for WDPA is at site level and therefore site based approach will probably be preferred. However, the very large number of protected areas in the world suggests that verification will need to be targeted. Should there be a size cut off (such as 1,000ha used for UN List) or should it be judged in relation to capacity of WCPA in each Region to deliver?

If a system were to be established, the following issues would need to be considered:

A verification system

1. **setting up the system**
   - i. **method of assessment** discussion of framework for assessment to be included in the new Categories Guidelines; and appraisal of different methods developed such as WCPA Europe, EUROPARC Spain etc.
   - ii. **appointment of Verifiers** experience and expertise needed for Verifiers; process of identification (e.g. member data base as being developed by WCPA Europe) and appointment of Verifiers (lessons from WCPA approach to WHS a WWF PAN Parks approach in Europe); capacity building for Verifiers; process of assessment of Verifiers performance. Issue of capacity of WCPA volunteers to undertake role.

2. **operating the system**
   Issues to be covered:
   i. running the system in each WCPA region: role of IUCN Regional Office protected area staff, role of WCPA Regional Vice-Chair;
   ii. developing approach to resolving disagreements between state authorities and WCPA Verifiers;
   iii. reporting lines within WCPA: to Categories Task Force or to specially constituted group/standing committee?

3. **step by step approach**
   i. **assignment process** framework and method for assigning protected area to IUCN category
   ii. **data to the WDPA** WCMC need to define data requirements for WDPA from WCPA Verification process
   iii. **interaction with data originators and others** define process to allow data originators within governmental system to scrutinise and challenge WCPA verification material
   iv. **resolution of differences on Verification** define process for resolution of differences between governmental originators and WCPA verifiers.

Should WCPA undertake certification of protected areas?

Certification is formal assessment of protected area or protected area system to IUCN category culminating in the production of a Certificate approved by and signed by IUCN WCPA Chair (? and DG).

A system has been developed and operated in Europe by WCPA in response to requests from Austrian Federal and Regional authorities for national parks.

Should system be voluntary on part of protected area authorities or mandatory? Currently in Europe it is voluntary and IUCN WCPA has no basis for making it mandatory, although presumably the UN through UNEP-WCMC has this option. General preference is for a voluntary system with examples of successful Certification used to persuade others of its value.

6. Using the categories

The categories were designed primarily as a statistical device for recording protected areas. But, perhaps in the absence of other tools, they have increasingly been used for planning and policy purposes as well. Two major papers summarise the ways in which uses have developed and make some suggestions for the future.

A paper on policy discusses how the categories have influenced a range of important international policy decisions.

A companion paper on use of the categories in protected area planning shows how a range of management approaches can increase the opportunities to create protected areas to address gaps in national protected area networks in order to complete the ecologically-representative protected areas network agreed by the Convention on Biological Diversity.

6.1. Using the IUCN categories in policy decisions

David Sheppard

Summary

This paper:

- ✓ highlights the use made of the IUCN protected area category system in influencing policy relating to protected areas at international, regional and national levels[27];
- ✓ identifies some constraints and lessons learnt in relation to the application of the system in policy; and
- ✓ discusses implications for the category summit.

Introduction

The original intent of the IUCN protected area category system was to provide for a common understanding of protected areas, both within and between countries. This is set out in the introduction to the Guidelines by the then Chair of CNPPA, P.H.C. (Bing) Lucas who wrote: "*These guidelines have a special significance as they are intended for everyone involved in protected areas, providing a common language by which managers, planners, researchers, politicians and citizens groups in all countries can exchange information and views*".

As noted by Phillips (2007) the 1994 Guidelines also aimed to: *"reduce the confusion around the use of many different terms in use to describe protected areas; provide international standards for global and regional accounting and comparisons between countries, using a common framework for the collection, handling and dissemination of protected areas data; and generally to improve communication and understanding between all those engaged in conservation."*

This anticipated use of the guidelines as a vehicle for "speaking a common language" has considerably broadened since the adoption of the guidelines in 1994. In particular, there have been a number of applications of the category system in policy at a range of levels: international, regional, and national. Some of these applications are outlined below.

Application of the category system in policy at international levels

There have traditionally been a number of ways in which the IUCN category system has been applied at the international level. This has included the incorporation of the categories in compiling various issues of the *United Nations List of Protected Areas*. In particular the 1994 categories were used as the basis for compiling the 1997 and 2003 versions of the UN List. At the international level there has also been limited use of the category system within global for a and agreements such as the Intergovernmental Forum on Forests and also within the context of Biosphere Reserves.

However, the most significant application at the international level has been the adoption by the Convention on Biological Diversity of the IUCN category system as the "industry standard" in relation to protected areas. The CBD COP 7, held in Kuala Lumpur (Feb. 2004), accepted that the IUCN category system provided a basis for reporting and recording protected areas, and encouraged governments and others to assign protected areas to the IUCN categories. Specifically, the CBD COP 7 adopted a Programme of Work on protected areas, which "*recognizes the value of a single international classification system for protected areas and the benefit of providing information that is comparable across countries and regions and therefore welcomes the on-going efforts of the IUCN WCPA to refine the IUCN system of categories and encourages Parties, other Governments and relevant organisations to assign protected area management categories to their protected areas, providing information consistent with the refined IUCN categories for reporting purposes.*"

It is anticipated that this clear statement in relation to the application of the IUCN category system will provide a major boost to the use of the category system, particularly at national levels.

Another significant development at the international level was the development of an "IUCN No Go position on mining in categories I to IV". This recommendation (number 2.82) was adopted by the IUCN World Conservation Congress in Amman in 2000. It recommended, inter alia "*IUCN Members to*

[27] This section draws on research by Benita Dillon in 2004 on the use of the categories in national and international legislation and policy

prohibit by law, all exploration and extraction of mineral resources in protected areas corresponding to IUCN Protected Areas Management Categories I to IV". This represented a new application of the IUCN category system in that it linked restrictions on resource use to the system itself. This in turn provided a major contribution to the decision by Shell and ICMM to make a "NO-GO" pledge in relation to exploration and use of resources in natural World heritage sites. It also gave raise to questioning by a number of Extractive Industry companies and representatives of the validity and accuracy of the process used to assign protected areas to the IUCN categories, particularly category I to IV.

Application of the category system in policy at regional levels

Two regional conventions and agreements have applied the IUCN categories (Dillon, 2004). These are the Conservation of Arctic Flora and Fauna (CAFF) Circumpolar Protected Areas Network (CPAN) Strategy and Action Plan 1996 and the Revised African Convention on the Conservation of Nature and Natural Resources 2003.

In the case of the African Convention, the IUCN categories had a strong influence on the development of the revised Convention and provided a framework for a number of sections of the Convention. The development of the African Convention involved an interagency taskforce which initially endorsed the use of the IUCN guidelines and draft text was then submitted to a number of African government experts who adapted the text to the African context. Article V of the Convention defines a Conservation Area as any protected area designated and managed mainly a range of purposes, and then goes on to elaborate these purposes by referring to the six IUCN categories. This provides an example of an approach that has been used elsewhere in relation to application of the categories. That is the system is carefully reviewed and considered in relation to a particular application and then it is adapted and tailored to meet local or regional circumstances.

Another example of regional level application exists within Europe, where a publication has been prepared on "Interpretation and Application of the Protected Area Management Categories in Europe". This aimed to provide clear and useful guidance for applying the categories within the European context. In particular this document highlighted challenges in applying the system in Europe and also included guidance in relation to how each of the individual IUCN categories could be assessed and applied.

Application of the category system in policy at national levels

Most countries have National legislation relating to protected areas. In many cases this predates the development of the 1994 category system. In recent (since 1994) a number of countries have developed new legislation or policy instruments. Dillon (2004) found that 10 per cent of the "new wave" of national legislation has used the IUCN categories. These include legislation in Australia, Brazil, Bulgaria, Cambodia, Cuba, Georgia, Hungary, Kuwait, Mexico, Niger, Slovenia, Uruguay and Vietnam. Australia and Georgia are two countries that specifically mention the IUCN categories in their national legislation. Many other countries have included the IUCN category system in their national policies but not in their legislation.

Many of these new legal initiatives have been stimulated by the publication of the 1994 Guidelines. National level application has also been assisted by the provision of expert guidance and assistance by IUCN experts, particularly experts from the IUCN Commission on Environmental Law (CEL) and the IUCN World Commission on Protected Areas (WCPA). For example, national level workshops were held in Australia, with input from WCPA, prior to the development of national legislation to explore the use of the guidelines in a local context. Also, expert advice has been provided by IUCN to China, Madagascar and Vietnam on how to apply the categories in their local legislation and policy work

The IUCN category system has also been used as a vehicle to promote higher national level standards in relation to protected areas. For example, the Government of Austria requested guidance from IUCN in relation to the steps necessary for the Hohe Tauern National Park to be formally recognized and certified as a category II National Park. This input was provided and an Action Plan was developed which set out the steps required to improve the level of on site management to a level consistent with an IUCN category II. This Action Plan resulted in the certification of the Hohe Tauern as an IUCN category II National Park in 2006.

Lessons learnt from application of the category system in policy

There are a number of lessons that can be derived from the application of the category system in policy at international, regional and national levels. These include:

- ✓ The categories have significant potential for influencing protected areas policy and legislation at all levels. The level of application has greatly accelerated since the publication of the 1994 guidelines;

- ✓ It is anticipated that the relative importance of the category system in influencing policy decisions will increase, particularly at national levels, as the CBD Protected Area Programme of Work is more widely and effectively applied;

- ✓ The advantages of including the category system in policy level decisions are that it gives the system extra weight and credibility and can enhance awareness and understanding of the values of protected areas; and

- ✓ The most effective use of the category system in policy level decisions has been where the system is applied in a flexible way, in response to unique national or regional circumstances.

There are, however, a number of constraints to the effective application of the category system in policy decisions. These include:

- ✓ the validity and accuracy of the process used to assign protected areas to the IUCN protected area categories, particularly category I to IV, has been challenged by a number of individuals and organisations. In particular challenges have been received from representatives of Extractive Industries in response to the IUCN Amman Recommendation on Mining and protected Areas, which linked a "No-Go" policy recommendation to assignment of a protected area within an IUCN category I to IV;

- ✓ Lack of awareness and/or understanding of the IUCN category system;

- ✓ Variable accuracy of data on protected areas in the World Database on Protected Areas and the UN List of Protected Areas;

- ✓ Lack of understanding and awareness of how the category system can be applied at national levels and also in particular biomes.

Implications for the category Summit

There are a number of implications from the above sections for discussions on this topic at the category summit. These include:

- ✓ Experience in applying the category system in policy at international, regional and national levels needs to be more widely identified and communicated. This should include both positive and negative examples;

- ✓ Approaches to improve the process of assignment of protected areas to categories and also to improve the accuracy of the data on protected areas in general need to be identified and increasingly applied; and

- ✓ Better guidance on how the category system can be applied to policy level decisions should be prepared and distributed.

6.2. IUCN categories and conservation planning

Jeffrey Parrish, Jose Courrau and Nigel Dudley

Summary of key recommendations

- ✓ Historically the protected area management categories have been used by management agencies to classify *post hoc* with varying accuracy, the purpose of a given protected area for reporting purposes.

- ✓ We recommend that protected area management categories be used *a priori* in the design of a more diverse portfolio of protected areas of varying management purposes (and governance types) to meet the needs of biodiversity across the landscape or seascape.

- ✓ As governments are called upon to identify and urgently fill gaps in their protected area systems, we urge planners to use the full suite of protected area management categories when identifying, designating, and launching management of new lands and waters. The purpose, as much as the place on a map, matters when rethinking the design of existing and new protected areas in the system.

- ✓ In light of the above there may also be justification for many countries to review their existing protected area categories.

Background

As human use and consumption dominates much of the world's land and seascapes, there is a growing need to view protected areas as a *range* of management practices rather than isolated, locked-up and restricted places on the planet. A "one-size fits all" approach to the management of biodiversity in protected areas will not only create conflict with other societal needs for natural resources, but will limit the range of management options for conservationists and the amount of land and sea available for biodiversity protection. Indeed, the diversity of protected area categories presents to conservation and natural resource planners a wide spectrum of options or prescriptions to place on the land/seascape to resolve conflicts among environmental, social, and economic values. Each category serves as a tool to be used to tackle an ecological necessity of a species or ecosystem, and balance that with society's needs. Under agreements of the Convention on Biological Diversity, governments are committed to completing ecologically representative networks of protected areas, and this process usually starts by identifying **gaps** in the current system – typically through an ecological gap analysis (Dudley and Parrish 2006). In a conservation context, gap analysis is a method **to identify biodiversity (*i.e., species, ecosystems and ecological processes*) not adequately conserved within a protected area network** or through other effective and long-term conservation measures. Well designed ecological gap analyses identify three types of gaps in a protected area system (sensu Dudley and Parrish, 2006):

1. ***representation*** gaps (no or insufficient existing coverage of a species or ecosystem by a protected area).
2. ***ecological*** gaps (protected area system fails to capture places or phenomena that are key to conserving a species or ecosystem during its life cycle), and
3. ***management*** gaps (the protected areas geographically cover the biodiversity elements but fail to protect them due to insufficient management purpose or implementation).

When gaps are identified and resulting actions are implemented – such as new protected areas being proposed to fill those gaps and reviews of management categories for the existing protected areas, being conducted - the full suite of categories should be considered. Further, though management effectiveness is receiving increased attention by protected area managers worldwide, it is still quite rare at the stage of gap analysis to consider the gain that could be made by improving the effectiveness of management or modifying the management objectives of *existing* protected areas, yet ineffective protected areas can be as much of a gap as the absence of protected areas. We strongly encourage protected area planners to explore not only improved management effectiveness, but also changes in a new or existing protected area's management category as a tool for better biodiversity conservation.

When revisiting the categories of *existing* protected area to determine the type of protection that will best conserve the biodiversity within that protected area, there is no single rule that says a category I protected area is better than a category II or III or VI. The only principle that *should* apply in assigning categories or evaluating protected area efficacy in biodiversity conservation is the appropriateness of a protected area's assigned management purpose ***relative to the ecological needs of, and threats to, the species of ecosystem*** in the context of existing social and physical circumstances, and in the context of the entire landscape or seascape where that biodiversity element occurs. The protected area creation objectives are also important to be considered at the moment of reviewing and assigning a management category. In some cases, it may be best to strengthen the degree of protection because of declines in the ecological or conservation status of a species or ecosystem within the protected area or across its distribution. In others, it might actually be more strategic to "lower" the protected area category assignment (e.g. from a category II protected area to a category IV). When might natural resource managers choose a lower protected area category over a more restricted one? Examples include:

- ✓ When the viability of a species' population or the integrity of the ecosystem has improved across its distribution and no longer demands reduced human use and intense protection.

- ✓ When the potential human uses in a lower protected area category are unlikely to affect the health of the species of ecosystem.

- ✓ When the management of ecological resources in the surrounding areas of the protected area or under lower IUCN protected area categories are compatible with the targeted species or ecological system's needs. For example, it may be more effective in river and freshwater protection to manage more of a watershed for ecosystem function with less restrictive protection than to protect the mainstream of the river as category I or I, depending on the priority threats to the biological target.

- ✓ When the reduction in constraints on uses of the land/seascape will result in openness among stakeholders for increasing the geographic coverage of protection to capture important areas for a species or ecosystem. In addition, engagement of stakeholders is becoming more common over time. Stakeholders are also important actors in the management of protected areas, especially under any form of co-management agreements.

- ✓ When biodiversity has become adapted to cultural management systems and absence of these interventions now constitutes a pressure on species

The case of the Carara National Park in Costa Rica is a good example of how not to assign management categories. The site used to be a Biological Reserve, a category I, strict management. However, historically the site allowed tourism use and other uses that conflicted with the category I. After some years and some confrontations with the tourism industry, the protected area agency decided to change the site management category to national park. In this case, apparently the tourism industry demands prevailed over the protected area creation objectives and purpose.

Principles for assigning protected area management categories in protected area system planning

- ✓ **Start with the ecological needs of species and ecosystems.** Management options should be determined primarily by the ecological characteristics and life history of the species and ecosystems. For example, it would be quite risky to assign a lower category designation to an area that is a critical bottleneck for the species, such as a singular congregation and refuelling area during migration.

- ✓ **Consider the threats to the species or ecosystem values.** Some threats lend themselves to a particular category, depending on their nature and intensity. For example, poaching or complete habitat destruction for a rare or endangered or endemic and geographically restrictive species may be better managed with higher category (e.g. category I or II) than with lower categories.

- ✓ **Consider the protected areas objectives, international designations and how they contribute to the landscape, country and global biodiversity conservation efforts.** Each existing protected area has been established for specific purposes and to accomplish specific objectives. When we consider the landscape and the country levels is possible to re-consider those purposes and objectives according to the role the protected area is expected to play in the

biodiversity conservation efforts. International designations such as those covered by the World Heritage Convention and the RAMSAR convention are useful to consider the best approach to manage a site.

- ✓ **Consider designing a process to assign/review management categories in a country**. A national protected area agency should have an official process to review and assign management categories. This process should be known by agency staff and stakeholders. For example, as a result of an ecological gap assessment, the protected area agency in Panama is currently engaging in the review of the management categories of all the country protected areas. They expect to develop a process to assign and review protected areas management categories.

- ✓ **No loss of naturalness, ecosystem function, or species viability.** The management option chosen should not in most cases result in a loss of current naturalness within the protected area (e.g., we would not normally propose a category V or VI protected area in a more-or-less natural site) although there may be exceptions.

- ✓ **Consider the land and seascape mosaic when assigning categories.** of Choice of category should reflect a contribution to the overall mosaic rather than just to the individual site, i.e. management objectives for any given site should not be selected in isolation. Similarly, we recommend that environmental planners seek to invest in a diverse portfolio of managed areas across the IUCN categories for a given biodiversity element.

- ✓ **Stakeholders matter.** Management options should take into consideration the needs, capacities and desires of local communities and should generally be selected after discussion with stakeholders – in general management objectives that are supported by local communities are more likely to succeed than those that are unpopular or opposed.

- ✓ **Consider management effectiveness when assigning protected area categories**. Managers should also take into account the existing and likely management effectiveness of a given area when recommending management purpose (protected area categories). Ineffective or non-existent management at a category I or II protected area (the paper-protected area syndrome) may achieve less conservation impact than a category V or VI protected area that, because of its diversity of stakeholders, may be able to deliver greater and less conflictive management on the ground. It is generally better to have an effective and permanent protected area with less complete protection than an ineffective strictly protected area (although there may be exceptions to this which we should elaborate).

- ✓ **Higher categories aren't always better.** It is often the case that conservation scientists assume that categories I-IV represent more effective conservation than lower categories in designation of protected areas as well as global, regional, and national analyses. This is not always the case. This depends entirely on management purpose and effectiveness vis-à-vis the biology and natural history of the focal biodiversity element.

- ✓ **Use the categories as a tool for within-protected area planning**. Within a single protected area, several zones with different management objectives can be agreed if this helps overall management. Consider temporary zones within protected areas (e.g. to allow sustainable exploitation of non-timber forest products by local communities).

- ✓ **Societal benefits of diversifying the category portfolio.** Considering use of a variety of protected area management categories can often help perceptions of protected areas and increase their adoption if people recognize that not every protected area means that the terrestrial, aquatic or marine resources are "locked up." Use of certain categories can build commitment by stakeholders for conservation and expand options for designation of areas for protection (e.g. sacred sites for local people's religion and that also represent significant contributions to biodiversity, as is the case in Tikal National Park, Guatemala).

7. Perspectives

The IUCN protected area management categories should be applicable anywhere in the world. But in practice use in different conditions presents particular questions or challenges and some biome-specific guidance may be useful. IUCN already has guidelines for application in forests and these are summarised below. Another paper looks specifically at questions relating to application in marine protected areas, where the categories sometimes have to address three-dimensional questions if protection regimes vary at different water depths. Two papers look at inland waters: a summary from a workshop with a proposal for adding freshwater elements into the protected area definition and a more detailed paper on use in the freshwater biome (which was written after the summit but is included here for completeness). Next we include a submission from the International Petroleum Industry Environmental Conservation Association, giving an industry view on the issues. Finally the WCPA Cities and Protected Areas Task Force makes some specific recommendations relating to categories in urban situations.

7.1. Marine protected areas

Dan Laffoley, Jon Day, Louisa Wood and Brad Barr

This paper outlines key issues arising from the application of the current IUCN categories for the marine environment and marine protected areas (MPAs). It is based on a workshop prior to the IMPAC1 Congress (2005), a paper by Wells & Day (2004), discussions at the WCPA – Marine MPA Summit (May 2007), and comments from MPA practitioners around the world.

No categorisation system will ever be perfect for all protected areas, but there are many benefits to adopting an internationally acceptable common system of protected area categories. Examples include: a universal approach understood by all; facilitation of regional and global reporting; ensuring that comparisons between protected areas are valid and based on globally standardised criteria; and assisting the implementation of global goals (e.g., the goal of at least one Cat I or Cat II MPA per bioregion). Today some 4000 marine protected areas (MPAs) from around the globe have been assigned an IUCN category and this information is stored in the WCMC global database. However various problems with these data have been identified.

1. Many practitioners consider that the IUCN categories are not easily applied in the marine environment. Some feel that the categories are only applicable to terrestrial protected areas and would need to be substantially revised to gain any relevance for their MPAs. As such, the application of the current IUCN categories system to MPAs has been highly uneven, both at the policy level and in practical terms. Some practitioners do not use the system at all, and may have developed their own framework. Where the system is used, the difficulties in applying it mean that it may not be applied consistently between locations, reducing the efficacy of the system as a global classification scheme.

2. There is considerable debate over the definition of an MPA, but the definition adopted has important consequences for the application of the system correctly to the correct list of MPAs. The diverse array of MPA goals, and their order of priority, varies enormously from place to place – "so much so that one could almost say that every MPA is unique, having been tailored to meet the specific circumstances of the place where it is established" (Agardy 1997). Put most simply, an MPA is any marine area afforded some kind of legal or non-statutorily agreed protection, usually to benefit marine values such as conservation and/or fisheries; this definition views protected areas whose boundaries include both terrestrial and marine habitats as an MPA[28].

3. Available information indicates that there is currently very poor alignment between the IUCN category currently recorded, and the extent to which human activities can be regulated (as specified in the relevant legislation or management plan) (Louisa Wood pers comm). This suggests that the system is not currently operating as an effective or reliable classification system.

4. Despite these implementation difficulties, the source (and therefore the reliability) of the information on IUCN category currently available for many MPAs is unknown. Furthermore, it is not always clear with whom the responsibility for classifying the MPAs lies.

As a consequence of these and other challenges, to date, the IUCN category system has largely been poorly or inappropriately applied to MPAs. As such, the categories do not enable or facilitate accurate reporting on MPAs and their management objectives. Therefore, while there is potential for the categories to be highly applicable to MPAs, this potential is not currently being realised. Many of the problems encountered in applying the categories to MPAs are also found with terrestrial protected areas. Nevertheless, some issues are specific to MPAs, and there is an urgent need to increase understanding by MPA practitioners of the functions of the category system. An improvement in the application of the system to MPAs is a significant and long-standing issue that needs to be addressed.

[28] The IUCN definition of an MPA is "Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment"

Key issues

1. **There is a clear need to make the categories more useful and understandable for MPA managers and planners (ie. a need to develop a '*marinized*' version of the guidelines)**

While the original 1994 *Guidelines* were explicitly intended to assist all protected areas (i.e. terrestrial and marine), there is a widely-held belief that 'Marine guidelines for the application of the IUCN categories' would assist all marine managers and planners. Draft versions of 'marine guidelines' exist, and it is recommended that these be refined and finalised as a major output of the WCPA-Marine Plan of Action.

2. **Is it appropriate to maintain a single system of categories that applies to both marine and terrestrial protected areas?**

The short answer is 'yes' *[recognising the need to develop 'Marine Guidelines' as outlined in (3) above]*. This was one of the conclusions of the IMPAC1 workshop on IUCN categories, and is particularly important because of the increasing number of large protected areas covering marine, estuarine and the adjoining coastal/terrestrial areas within the one protected area. Furthermore it is often the same management agency within a country that has jurisdiction over many or sometimes all protected areas, irrespective of whether they are terrestrial or marine. A single approach applicable to marine, freshwater and terrestrial protected areas also recognises the increasing awareness of the high level of connectivity between these two realms.

3. **Should a category be assigned to each major biome (specifically, land, freshwater and marine)?**

Currently, around 25 per cent of the MPAs listed in the WCMC global database are predominantly terrestrial but include a small marine component. Available information suggests that the IUCN category assigned to most of these protected areas was based only on the terrestrial management objectives only, and that the marine management objectives differ substantially, to the extent that the category assigned would likely be different if based on the marine objectives. This brings to light an important need for clarification when applying the category system to protected areas whose boundaries cross the land/water interface (and the need to differentiate between freshwater and sea).

4. **One of the biggest problems with the current system is due to users focussing on the category names (ie 'national park', 'national monument') rather than on the category objectives/purposes.**

Many users who do assign MPAs to the IUCN categories quickly scan the category names rather than looking at the detail or the objectives; however, the same name or title means different things in different countries. For example, the terms 'national park' and 'marine park' are some of the most commonly used terms, but differ significantly in how they are applied around the world. The term 'sanctuary', as used in the US context, is a multiple-use MPA that is designated under the jurisdiction of NOAA's National Marine Sanctuary Program (eg. Florida Keys National Marine Sanctuary). However 'sanctuary' takes on a very different meaning elsewhere in the world – in the UK, the term has been used, on occasion, to refer to strictly protected marine reserves in which all extractive use is prohibited.

The multitude of labels, definitions and terminologies globally has the potential to confuse most users through misunderstanding and uncertainty. The confusion is all the more reason for emphasizing an international system of protected area categorization that is independent of terms or titles - hence the proposal for the 'hurricane' approach of just numbers (i.e. category II) along with clear criteria for each category – and if your MPA does not meet the criteria for a particular category, then it needs to be considered for one of the other categories.

As outlined in the introductory summary of the conceptual basis of the categories, above, there is no intention with the revised approach to stop MPAs retaining their local names (eg.. '*xyz* Marine Park'), but there will be a more systematic and consistent basis for assignment to one of the categories.

5. **Should category II always equate to no-take?**

The current objective for category II is managed mainly for 'ecosystem protection and recreation', so some would argue that this allows all types of recreational activity including fishing. Others, however, maintain only non-extractive recreational activities are appropriate given the overall intent of the category plus the provisions in the other categories. This needs to be clarified in the revised *Guidelines*, but given the intention to "protect the ecological integrity of one or more ecosystems for present and future generations", to "exclude exploitation inimical to the purposes of designation of the area" and be "environmentally and culturally compatible", it is recommended that only non-exploitive activities be allowed in category II areas [unless the exploitation is for scientific research purposes which cannot be done elsewhere and the research is of benefit for the management of the MPA].

6. There is a lack of clarity in the 1994 *Guidelines* for 'multiple classifications'

Multiple classifications are defined in the *Guidelines* as places "where parts of a single management unit are classified by law as having different management objectives". This definition does not make it clear whether the term 'multiple classifications' applies to a single protected area, or to several protected areas.

Many MPAs may comprise more than one IUCN category. Multiple-use MPAs are generally zoned, each zone type having different specific objectives, with some allowing greater use and removal of resources than others.

The 1994 *Guidelines* acknowledge that zoning is a feature of the management of many protected areas. The *Guidelines* recognise that "protected areas of different categories are often contiguous; sometimes one category 'nests' within another. Thus many category VI areas contain within them category II and IV areas. This is entirely consistent with the application of the system, providing such areas are identified separately for accounting and reporting purposes." (IUCN 1994) The *Guidelines* also recognise that there are cases where "parts of a single management unit are classified by law as having different management objectives" (ibid). In effect, these 'parts' are individual protected areas that together make up a larger unit, which – confusingly – may also be considered as a single protected area.

In 2001, a recommendation was adopted by the WCPA Steering Committee, which allows for single management units to be separately reported on and accounted for if:

- ✓ the areas (or zones within the protected area) were defined in the primary legislation setting up the protected area;
- ✓ these areas are clearly defined and mapped; and
- ✓ the management aims for the individual parts are unambiguous, allowing assignment to a particular protected area category.

When these conditions are met, each part of the larger management unit should be recorded and classified separately on the database and in the UN List. The larger unit may retain its own categorisation, as now, provided the entire area meets the *Guidelines*. If specific zones within the broader area equate more to other IUCN categories, then the smaller units are the basis for accounting and reporting rather than the larger primary unit (this will reduce any problems of double-counting). The advice would relate to all kinds of protected areas and should be a requirement of the reporting process.

Multiple use MPAs currently may have been assigned a range of categories, and it may be important that these to be re-assessed. For example, the Ngerukewid Islands Wildlife Preserve in Palau has been assigned category III on account of its unique limestone islands which constitute in effect a 'national monument'. However, the main objective of the protected area, particularly for the marine component, is strict biodiversity protection.

It is important to recognize that arrangements made to deal with the anomalous position of some very large MPAs should not lead to an attempt to categorise all protected areas by their management zones. It is also desirable that assignment 'rules' should apply to all protected areas (not just marine) – for example, the '75 per cent rule' requiring at least 75 per cent of the area to fit the appropriate category criteria). These rules must be applied by all those providing information for the WDPA, as in many cases those doing so, are managing both terrestrial and marine protected areas.

7. How should <u>vertically</u>-zoned areas be recorded in the database?

In a three-dimensional marine environment, some jurisdictions have made attempts at vertical zoning (eg different rules within the water column than those allowed to occur on the seafloor). This is one way of aiming for increased benthic protection while allowing pelagic fishing; however it also raises difficulties for enforcement purposes and is not easily shown within the existing 2-dimensional databases or on maps. More importantly, the linkages between benthic and pelagic systems and species are not fully known, so the exploitation of the surface or mid-water fisheries may have some unknown impacts on the underlying benthic communities. Recognising that vertical zoning already exists in some MPAs, a number of important questions remain … a major one being how should such areas be shown in the WDPA?

8. Should the categories imply the <u>desired</u> level of management (i.e. be based on the <u>objective</u> of the area?), or should categories only be applied based on the <u>existing</u> level of management effectiveness?

Point 2(b) above makes it clear that the category should be chosen on what it is intended to be by law, not on the current management situation. It is obvious that an area that was previously able to be fished but that has been recently set aside under law as a no-take area, will not immediately be as pristine as an area that

was set aside with a 'no-take' management objective 20 years ago and since been effectively managed as a no-take area. Hence it should be the legislated (or non-statutorily agreed) objective of the area that determines the IUCN category, not the conditions existing at the time that the category was assigned.

9. What other types of marine areas are suitable for recording as various IUCN categories? (eg. fisheries closures?)

Areas managed primarily for fisheries management rather than for conservation are not always recognised as protected areas in the IUCN sense. This has raised some concerns as it could mean that no-fishing areas that may be more strictly protected than some areas set aside for marine biodiversity conservation, would not be recognised as MPAs.

Provided a part of the marine, estuarine, or inshore environment fits the IUCN definition for a MPA (whether or not the area wants to be referred to as a MPA), then it is not inappropriate that it be assigned to one or more of the relevant IUCN categories. This means that any marine area, including an intertidal or sub-tidal area, "together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment" may be assigned to a IUCN category - even if its prime purpose is for fisheries management.

10. The above approach should clarify the often prevailing view that all MPAs must be either category I, II or III.

Few outside the protected area profession are aware of the IUCN categories managed for sustainable use (i.e. categories IV to VI). These may still be called MPAs provided they meet the IUCN definition.

11. What happens when there are inconsistencies between the IUCN categories and other category systems?

A number of countries have already adopted a category system into their own legal framework (for example, Australia), and this is being increasingly done elsewhere. For example in Australia, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) requires that an IUCN category must be assigned when any protected area is declared by the national government. The legislation includes, for each category, a set of 'Australian IUCN Reserve Management Principles', based on the 1994 IUCN guidelines for assigning categories. Reserves may be multiple-use, in which case each zone is assigned an appropriate category. Note however that a different numbering system does apply which is not consistent with the international IUCN system.

The IUCN category system is not legally binding upon a State Party; and if a country chooses to use a system that is inconsistent with the international system, then that is their own choice. However given the international application and intention of the IUCN system, this is not the preferred approach. When reporting internationally (eg to the global database), all countries will be requested to report in a manner consistent with the international guidelines; hence it makes sense for countries not to adopt inconsistent approaches.

12. Resolving MPAs that do not neatly fit into one category or another – who makes the call? Also who has the responsibility for assigning categories in the first place?

The diverse array of MPA goals, and their order of priority, varies enormously from place to place – so much so that one could almost say that every MPA is unique, having been tailored to meet the specific circumstances of the place where it is established (Agardy, 1997). In this way there may be instances where the criteria mean a MPA does not fit neatly into one category or another … it is up to the State Party (ire the country) to make the call as to the most appropriate category, remembering that the WDPA is publicly available and it will be of little value if MPAs are obviously mis-reported. There are also 'rules' for the application of the categories (e.g. the '75 per cent rule' ensures assignment to only one category provided 75 per cent of the total area meets the objective of that particular category). It is also important to recognise the WDPA is the international list upon which progress will be reported

13. How can the assignment of IUCN categories in the WDPA be more effective? Also how can the can the monitoring of IUCN categories in the WDPA be more effective?

By far the biggest issue is incorrect application of the categories, whether they be due to land/sea issues, interpretation issues, locational/cultural differences or some other reason. This has then been exacerbated by the fact that there is a lack of clarity on who should be assigning the categories. Finally, because the WDPA doesn't store reference information at the field level, it is not possible to track when and by whom that decision was made. One suggestion is that it may be more appropriate to focus on overhauling the data once the guidelines have been improved, and also introducing a referencing system for the data.

The various difficulties in applying the category system cover have the combined effect of heavily diminishing the value and reliability of the data currently stored in the global database. There is a clear need to revise and update the category information currently in the database for all MPAs. In addition, given the difficulties in applying the categories and the ambiguity over who has the responsibility to assign a category to an MPA, it would greatly facilitate monitoring efforts if the database were expanded to also store information on when and by whom the category was assigned, and under what conditions.

Recommendations to the Summit on future work and direction

Regarding the application of the IUCN categories for MPAs, the following are considered the key recommendations:

a) A **'Marine Version' of the IUCN category guidelines should be developed** by WCPA-Marine and widely disseminated as a companion document or addendum to the IUCN *'Guidelines for protected area management categories'*. This should build upon the format already existing for each of the IUCN categories (and draft versions known to exist), and be aimed primarily at those involved in MPA establishment and management. It should also include practical examples for each category showing how they have been correctly applied.

b) In the IUCN Guidelines there is also **a need to clarify terms** that have different meanings or customary interpretations between land and sea (one notable example is the term 'land-use' which is often used to mean the entire range of human activities that impact the natural environment).

c) **WCPA-Marine needs to stress the objective-based approach** of the categories in relation to uses of MPAs and the adoption of the 'hurricane' approach of just numbers (i.e. category II) along with clear criteria for each category rather than names for categories.

d) **The relevance of IUCN categories to MPAs should be promoted**, and made clear to all those involved in MPA establishment and management. Some countries may need technical assistance in the assignment process.

e) **MPA practitioners should be requested to periodically review the IUCN categories** applying in their MPA, and if necessary advise their WCPA Regional Coordinators and/or WCMC/UNEP of any necessary changes.

f) **The UNEP/WCMC database needs to be amended to**:

- *a.* allow inputting of multiple IUCN categories for single protected areas (marine and terrestrial);
- *b.* store reference information at the field level, so it is possible to track when and by whom that decision for a particular category was made;
- *c.* Enable future editions of the UN List to more accurately report separate management units within a protected area provided they meet the criteria set down in the guidelines.

On the **issue of double counting**, WCPA/IUCN should ask UNEP/WCMC to develop a means of identifying and recording any protected areas, including MPAs, that are located within other protected areas so as to remove any double counting from the data base and UN List.

7.2. Inland water protected areas (1)

Conclusions and recommendations from the Skukuza Freshwater Group

Summary

Freshwater biodiversity is underrepresented in protected area systems worldwide. This threatens the ecological integrity of freshwater ecosystems as well as human communities across the globe. We believe this gap in awareness and in protected areas must be urgently addressed. This should begin with the very definition of protected areas which has assumed that freshwater biological features will be included by any terrestrial efforts – an assumption that has proven to be incorrect. This need for greater attention to freshwater biodiversity – along with terrestrial and marine systems – has implications for the protected area management categories, and we call upon members of the World Commission on Protected Areas to ensure any improvement to the category system addresses freshwater biodiversity and freshwater protected areas.

What is the problem?

Conservation of freshwater ecosystems is crucial for providing reliable and clean water supplies needed to sustain people, ecosystems and nature. Globally, freshwater biodiversity and habitats are being lost at an unprecedented rate.

There is:

- ✓ A massive decline of freshwater biodiversity, which is worse than that recorded for terrestrial and marine biomes;
- ✓ A growing demand for water and increasing pollution over large parts of the world threaten remaining freshwater biodiversity;
- ✓ The likelihood that these threats will be exacerbated by climate change, and by inadequate or inappropriate government responses to climate change, such as the construction of more dams for hydroelectricity and water supply.
- ✓ Large areas of freshwater habitats are incorporated in protected areas (e.g. Ramsar sites), but these protected areas face numerous problems:
  - They are not properly representative of the diversity of habitats, nor geographies and biogeographic realms;
  - They are rarely sustained by environmental flows
  - Existing protected areas were often not designated and managed for freshwater conservation, for example headwaters are typically excluded and rivers are used as their boundaries;
  - They are usually not networked effectively to conserve freshwater species or maintain necessary ecological processes.
  - They are often viewed and managed as a necessary resource for conserving terrestrial biodiversity rather than for their intrinsic biodiversity value.
- ✓ Conserving freshwater ecosystems is one of the greatest governance challenges faced by modern societies. There are multiple and often conflicting demands placed upon freshwater. Nearly everyone lives within a river basin and everyone needs to be part of the solutions for their conservation.

The Skukuza experts discussed the low priority afforded by most governments to better freshwater ecosystem management, and concluded that:

- ✓ Conservation of freshwater ecosystems is critical for sustainable livelihoods and the achievement of human development targets; the wise management of ecosystem services provided by freshwater is the key link in achieving multiple development targets.
- ✓ Governments and societies are often unaware of the need to conserve freshwater ecosystems, threats to them and opportunities to manage them better.
- ✓ There are unique opportunities now to advance freshwater conservation, especially for freshwater protected areas, through commitments made under the Convention on Biological Diversity and the Ramsar Convention on Wetlands.
- ✓ The Symposium concluded that the world community needs to enhance conservation management, especially by using areas for the protection of:
  - The entire freshwater biome at the largest scale through wise use and conservation;
  - Environmental processes, such as the flow of sediments and nutrients in rivers needed to sustain the ecology of floodplains, deltas and estuaries;

- Attributes that provide particular ecosystem services from natural wetlands, services such as clean water, medicinal plants and fish;
- Freshwater-dependant species, such as mammals, birds, fish;
- Ecological communities, such as floodplain forests, lakes, and peat swamps.

To best manage and conserve freshwater habitats, it is critical that a linked set of actions are implemented concurrently at different scales, ranging from sites, to small catchments, to entire river basins, to concerted national and international actions. Protected areas are one of the most important strategies for conserving inland water biodiversity at local to basin scales. Integrated river basin (catchment / watershed) management, and the provision of adequate water flows are two other critical actions that are needed.

The symposium agreed that the roles of protected areas regarding the conservation of freshwater ecosystems are to:

- ✓ Conserve biodiversity *in situ* (species, wetlands types)
- ✓ Maintain ecological processes (e.g. free-flowing, icon sites lever allocation of flows)
- ✓ Manage the ecosystem and biodiversity to deliver defined ecosystem goods and services, e.g. to sustain fisheries and/or reliable sources of clean water supply
- ✓ Act as scientific reference points
- ✓ Reduce user group conflicts

The Symposium urges IUCN, through its WCPA, to redefine its definition of protected areas to better embrace freshwater conservation. We propose that a new definition for freshwater protected areas should be redefined as: *"An area of land, inland waters and/or sea especially dedicated to the protection and maintenance of biological diversity, ecological processes and the ecosystem services provided, and of natural and associated cultural resources, and managed through legal or other effective means."*

The Symposium participants committed to several actions designed to help governments and society better conserve freshwater ecosystems for people and nature. These actions include:

- ✓ Preparing and distributing guidelines and case studies publicly on: a) management guidelines for optimal conservation of freshwater biodiversity in protected areas; b) establishing protected area systems to conserve freshwater biodiversity at the national scale;
- ✓ Developing criteria, guidelines and case studies, and develop a place where rivers that are protected as free-flowing rivers can be registered by governments and celebrated;
- ✓ Supporting national governments to implement national protected area systems to conserve freshwater biodiversity;
- ✓ Existing method and case study materials are being published on the website: www.protectedareas.info

The Symposium concluded that:

- ✓ Freshwater habitats need to be conserved as the source of water for people and nature;
- ✓ Effective protected areas are one of the best tools for conserving freshwater ecosystems to benefit people and nature;
- ✓ Globally, peace, good health and food security depend on sustainable management of freshwater ecosystems as the main source of water for people and nature;
- ✓ A well managed aquatic environment is the best defence against disasters such as floods and droughts and the best response to mitigate against the impacts of climate change.
- ✓ The need for greater attention to freshwater biodiversity has implications for the protected area management categories, and we call upon members of the WCPA to ensure any improvement to the category system addresses freshwater biodiversity and freshwater protected areas.

The world's governments face a huge challenge to manage freshwater ecosystems sustainably – mitigating the threats is urgent. The future of freshwater biodiversity and the critical ecosystem services that it provides, such as drinking water, food, nutrient cycling, flood and drought control, depend on immediate action. Fortunately the government commitments that have been agreed under the Convention on Biological Diversity and Ramsar Convention on Wetlands provide a unique opportunity to establish an effective protected areas system that will make a major contribution, by 2010, to significantly reduce the rate of biodiversity loss as a contribution to poverty alleviation and to the benefit of all life on earth.

Acknowledements

On 9-13 October 2006, 33 experts from government and non-government organizations, with particular expertise from Australia, South Africa and the USA, gathered in Skukuza, South Africa, to identify solutions for freshwater conservation, especially through improved establishment and management of protected areas for freshwater conservation.

7.3. Inland water protected areas (2)

Robin Abell

Inland wetland ecosystems occupy only a small area of the planet but of all biomes and habitats, are the most heavily impacted and threatened by human activities. Governments and the conservation community have made commitments to conserve inland wetland species and habitats equal to those for the marine and terrestrial realms, but those commitments have yet to be fully realized. Greater effort and attention must be given both to achieving adequate representation and protection of inland wetland systems through designation of so-called inland wetland protected areas and to improving management of inland wetland systems and species that occur within protected areas originally designated to protect terrestrial targets. **Inland wetland considerations should be integrated into the management of *all* relevant protected areas, Furthermore, protected areas need to be seen in a wider bioregional and catchment context if inland wetland conservation is to succeed.**

These guidelines summarize key commitments, challenges and solutions for using protected areas, and applying categories specifically, to advance the conservation of inland wetland ecosystems and species. Information is grouped under the following headings:

- ✓ International inland wetland protected areas goals/targets/resolutions
- ✓ Links with the Ramsar Convention
- ✓ Complexities of inland wetland protection
- ✓ Applying the new protected areas definition
- ✓ Applying protected areas categories
- ✓ Integrated protection of terrestrial and inland wetland systems
- ✓ Accounting of inland wetland protections

Box 4: Definitions – Inland wetlands, freshwater systems, and wetlands

The terms *inland waters (inland wetlands)*, *freshwater systems*, and simply *wetlands* are often used interchangeably, but there are some differences. *Inland waters or inland wetlands* refers to all non-marine aquatic systems, including inland saline and brackish-water systems; whether transitional systems like estuaries are included is a matter of interpretation. *Inland wetlands* is the term used by the CBD. *Freshwater* is technically defined as 'of, relating to, living in, or consisting of water that is not saline.' Technically, then, it excludes inland saline and brackish-water systems, but in practice the term is often used as equivalent to inland wetlands. The Ramsar Convention defines *wetlands* as 'areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.' In some regions of the world the term *wetlands* is informally understood to exclude non-vegetated aquatic systems like streams, lakes, and groundwaters. For the purposes of these guidelines we use the term *inland waters* to describe the variety of aquatic and semi-aquatic habitats, and their associated species, that fall outside marine classifications. Natural inland water wetlands include (modified from the Millennium Ecosystem Assessment, Wetlands and Water Synthesis Report, Table 3.1):

- ✓ Permanent and temporary rivers and streams
- ✓ Permanent lakes
- ✓ Seasonal lakes, marshes, and swamps, including floodplains
- ✓ Forested wetlands, marshes, and swamps, including floodplains
- ✓ Alpine and tundra welands
- ✓ Springs, oases and geothermal wetlands
- ✓ Underground wetlands, including caves and groundwater systems

International inland wetland protected area goals/ targets/ resolutions

The world's governments have made numerous commitments to protect inland wetland biodiversity and ecosystems in protected area systems:

- ✓ Designation of a representative area of each wetland habitat type, and other wetlands meeting one or more of nine different criteria, as Wetlands of International Importance – Ramsar sites – under the Ramsar Convention on Wetlands. The Strategic Framework for the List of Wetlands of International Importance has as its first objective to "*fully represent the diversity of wetlands and their key ecological and hydrological functions*" and adopts as the target for the Ramsar List in 2010: "*To ensure that the List of Wetlands of International Importance contains at least 2,500 sites covering 250 million hectares by 2010.*"

- ✓ The Food and Agriculture Organisation's 1995 "Code of conduct for responsible fisheries," that was adopted by 170 nations, requires protection of critical habitats. Section 6.8 (FAO 1995) states "*All critical fisheries habitats in marine and fresh water ecosystems, such as wetlands, mangroves, reefs, lagoons, nursery and spawning areas, should be protected and rehabilitated as far as possible and where necessary….*"

- ✓ Several regional and bilateral migratory bird agreements call for the protection of wetland habitats critical to waterbird survival. For example, the African-Eurasian Waterbird Agreement (AEWA) states that '*Parties shall endeavour to continue establishing protected areas to conserve habitats important for the populations listed.*'

- ✓ In 2006, Parties to the CBD COP 8 adopted targets for achievement of the CBD PoWPA, including inland wetlands biodiversity targets (CBD 2006, decision VIII/15: Annex IV) for:
  - *At least 10per cent of known inland wetland ecosystem area effectively conserved and under integrated river or lake basin management*; and
  - *275 million hectares of wetlands of particular importance to biodiversity protected, including representation and equitable distribution of areas of different wetland types across the range of biogeographic zones.*

A Thematic Programme of Work for Inland Waters Biodiversity (decision VII/4 – annex) with a strong set of goals and activities has also been adopted. Integrated river basin management was adopted as a primary tool for implementing the Programme of Work, along with a provision calling on Parties to facilitate at least minimum water allocations to maintain function and integrity of inland wetland ecosystems.

Links with the Ramsar Convention

The 158 Contracting Parties (Governments) to the Ramsar Convention on Wetlands have committed themselves to the 'wise use' of all wetlands on their territory (including rivers), conservation of "wetlands of international importance" (Ramsar sites), and international cooperation. Ramsar Convention Contracting Parties each commit to undertaking an inventory of their wetlands and preparing a 'strategic framework for the Ramsar list' for the systematic and representative national designation and management of wetland habitat types.

Ramsar has acted, by decision of CBD COP 3, as the CBD's lead implementation partner for wetlands, and this is implemented also through a CBD/Ramsar Joint Work Plan. Thus implementation of CBD's Thematic Programme of Work on Inland Waters Biodiversity is practically delivered through Ramsar implementation, including through the designation of Ramsar sites. Likewise the designation of Ramsar sites provides a significant tool for delivery of CBD programme of work on protected areas.

The Convention has many benefits for wetlands conservation since it creates moral pressure for member governments to establish and manage wetland protected areas; sets standards, provides guidance, and facilitates collaboration on wise usei has a triennial global reporting and monitoring system; and encourages participation of non-government organizations, local communities, and indigenous peoples. While Ramsar sites may fall into any one or more of the IUCN categories of protected areas, and many Ramsar sites are not IUCN categories I-VI, all Ramsar sites are protected areas and are included in the World Database of Protected Areas. Ramsar guidance can be adapted for any wetland protected area, whether or not it is a site of international importance (i.e. Ramsar site). For more information about Ramsar, see 'Other Approaches to Protection.'

Complexities of inland wetland protection

The relationship between protected areas and inland wetland conservation is complex. There are many real and perceived incompatibilities and challenges that arise when considering this relationship, including:

- ✓ **Landscape relationship and role**. Inland wetland systems are part of the larger terrestrial landscape and distinct parts are linked to their upstream catchments[29] through a variety of above- and below-ground hydrological processes. The prospect of 'fencing off' inland wetland systems is in most cases technically infeasible, for the reasons described below. The most effective protected areas for inland wetland conservation will be part of integrated river basin management (IRBM), sometimes called integrated catchment or watershed management. IRBM involves a landscape-scale strategy to achieve environmental, economic, and social objectives concurrently. IRBM is a form of the ecosystem approach, which the countries that have acceded to the Convention on Biological Diversity are committed to implementing. The world's governments are also committed to planning and

[29] A *catchment* is defined here as all lands enclosed by a continuous hydrologic-surface drainage divide and lying upslope from a specified point on a stream; or, in the case of closed-basin systems, all lands draining to a lake.

implementing integrated water resources management (IWRM), which is similar in theory to IRBM but not geographically bound by river basins. In practice, regrettably, IWRM and even IRBM have not always given adequate attention to inland wetland biodiversity conservation.

✓ **Hydrologic processes**. To state the obvious, water is central to inland wetland systems. The 'key driver' in running-water (lotic) inland wetland systems is the flow[30] regime: the magnitude, frequency, timing, duration, and rate of change of water flows. In standing-water (lentic) inland wetland systems, the master variable is typically the hydroperiod: the seasonal and cyclical pattern of water. Both flow regime and hydroperiod characterize a system's 'hydropattern.' For nearly all inland wetland systems, water is generated "outside" the systems themselves and enters via overland and sub-surface pathways and tributary inflows. Protecting the hydropattern requires protection or management that extends upstream and upslope and often even into groundwatersheds[31]. In many cases, transboundary water management may be required, even if the protected area in question sits only in one state. In the case of most existing protected areas, this translates to working with stakeholders and partners to manage flow regimes outside protected area boundaries.

✓ **Longitudinal connectivity**. Streams and stream networks have a linear, or longitudinal, dimension along with lateral, vertical, and temporal dimensions. Protecting longitudinal connectivity – the linkages of habitats, species, communities, and ecological processes between upstream and downstream portions of a stream corridor or network – is often an essential goal of inland wetland conservation and involves preventing or removing physical and chemical barriers. Protecting longitudinal connectivity is also identified as critical to maintaining resilient systems in the face of climate change. Conversely, additional artificial connectivity, as occurs in inter-basin transfers, can be deleterious because of alien species invasions. Traditional protected areas are often envisioned as polygons rather than linear features and rarely are designed around protection and management of the longitudinal connectivity of stream channels. Often, stream channels are used to demarcate the boundaries of protected areas, without receiving dedicated protection themselves.

- **Lateral connectivity**. The lateral connections between streams and the surrounding landscape are essential to the ecological health of both the streams and the associated floodplain and riparian communities. These connections are driven in large part by the hydrologic processes described above – with the interaction between stream flows and riparian lands creating the dynamic conditions that are the basis for the unique and rich habitats of floodplains and riparian wetlands. These lands also contribute critical organic and inorganic materials to streams, and can buffer aquatic habitats from pollutants. The width of these areas varies greatly, from relatively narrow strips in areas of steep slopes to extremely large floodplains. Protected areas can play an important role in conserving riparian and floodplain habitats and their connectivity with river channels.

✓ **Groundwater-surface water interactions**. Protecting above-ground inland wetland species and habitats usually requires looking beyond surface hydrology. Groundwater-fed systems are common in many areas, requiring protection of groundwater flows as well as surface waters. Most surface waters also depend on groundwaters (the water table) for their functioning, irrespective of whether fed by groundwater or not. Groundwaters, such as in karstic areas, provide habitat for often-specialized species as well as water for millions of people. Groundwatersheds and surface water catchments may not spatially or geo-politically coincide, adding an additional layer of complexity to protecting inflows.

✓ **Exogenous threats**. Inland wetland systems generally sit at the lowest points on the landscape and consequently receive disturbances that are propagated across catchments and transmitted through water (e.g., pollution, soil erosion, and eutrophication). While all protected areas in principle must contend with threats originating outside their boundaries, those with a goal of conserving inland wetland systems must explicitly address upslope, upstream, and in some cases even downstream threats (like invasive species) that could impinge on conservation targets.

✓ **Exclusion from inland wetland resources.** Human communities have always settled in proximity to inland wetland systems, which

[30] *Flow* is defined here as the volume of water passing a given point per unit of time.
[31] The underground equivalent of a watershed, or surface water catchment

provide a wide array of essential ecosystem services, not least of these being drinking water. The fundamental right of access to fresh water, both within and upstream of protected araes, can be in conflict with the aims of some protected area categories that limit human resource use.

- ✓ **Multiple management authorities**. In many if not most countries there are overlapping and potentially conflicting responsibilities of different government agencies as they relate to the management of freshwater resources, wetland species, aquatic habitats, surrounding landscapes, and protected areas. Consequently, managing inland wetland species and habitats within a protected area – which as noted above will likely require managing lands and water outside the protected area as well – can be complicated by the need to coordinate among multiple authorities, some with mandates at odds with biodiversity conservation.

In short, challenges for conserving inland wetland systems and species abound. While ideally protected areas established to conserve inland wetland ecosystems will encompass entire catchments, more typically innovative combinations of protected areas and other strategies will need to be applied within an IRBM framework. Existing protected areas designated and designed to protect terrestrial targets no doubt confer some benefits to inland wetland biodiversity through landscape management, but there are significant opportunities to provide enhanced protection. Designs for new protected areas can and should include inland wetland considerations from the outset to achieve better integration. The following pages provide introductory guidelines for how protected areas can better assist inland wetland conservation.

Applying the new protected area definition

The new protected area definition -- *A clearly defined geographical space, recognised, dedicated and managed to achieve the long-term conservation of nature, associated ecosystem services and cultural values* – is more inclusive of fresh waters than the previously adopted definition through its replacement of '*area of land and/or sea'* with *'a clearly defined geographic space.'* Protected areas that may be defined primarily to conserve inland wetland features such as river corridors or lakes are now clearly covered by the definition. This includes some types of protected areas that are unique to inland wetland ecosystems, such as designated free-flowing rivers.

A wide range of inland wetland conservation strategies targeted at protecting water quality and quantity, such as managing for environmental flows[32] and applying wise management practices to land use, normally fall outside the protected area definition. They are mentioned here because effective conservation of inland wetland systems within protected areas will in most cases only be achieved through coordinated use of such strategies outside protected areas. protected areas can play important advocacy roles for such external strategies.

Applying protected area categories

As with terrestrial (with special cases such as forests) or marine protected areas, any of the protected area categories can in principle apply to areas with explicit inland wetland conservation objectives. Examples of protected areas that have clear objectives relating to inland wetland conservation are found within every IUCN category (see Table 7 at the end of the paper):

Like protected areas generally, inland wetland-associated protected areas may benefit from mixed zoning to permit different levels of use. For example, in Lake Malawi National Park (Malawi), traditional fishing methods aimed at catching migratory fish are permitted in limited areas, while in most of the park the resident fish may not be fished.

Whether and how protected area categories are linked to place-based protections is case-specific. Table 8 lists a number of place-based strategies and identifies when they are particularly compatible, not incompatible, or incompatible with IUCN protected area categories. These assignments are generalities, and exceptions will exist. World Heritage Sites, Ramsar Sites, and Biosphere Reserves are included because they have been used widely to protect inland wetland features and because they have each made use of mixed zoning. Place-based protection mechanisms both specific to inland wetland systems and not are listed to emphasize the variety of strategies in an inland wetland protection toolbox (see Table 8).

Many protected areas designated in whole or part to protect inland wetlands, including most Ramsar sites, do not yet have protected area category assignments. Additionally, many protected areas contributing to inland wetland ecosystem conservation have no Ramsar status. Consequently, it is presently not possible to assess globally which existing protected areas have inland wetland objectives, or how IUCN

[32] The quality, quantity, and timing of water flows required to maintain the components, functions, processes, and resilience of aquatic ecosystems which provide goods and services to people

categories have been applied to them. The need to quantify the extent of dedicated inland wetland protection, though, should not take attention away from the necessity of considering inland wetland objectives for all terrestrial protected areas. Different types of inland wetland systems, with different degrees of intactness, may lend themselves more to some protected area categories than others. The variety of options and examples suggests that, contrary to conventional wisdom, protected areas and inland wetland protection can be compatible (see Table 9).

Integrated protection of terrestrial and inland wetland systems

This account intentionally avoids use of the term 'inland wetland protected area' because defining and applying it is problematic. MPAs are easily identified by their location in the marine realm. Inland wetland systems, however, span the terrestrial landscape and occur in virtually all terrestrial protected areas. Certain protected areas, such as free-flowing rivers and many Ramsar sites, might clearly qualify as 'inland wetland protected areas'. But the designation of other inland wetland protected areas is ambiguous. Some protected areas have included both terrestrial and inland wetland management goals from the outset, whereas others originally designated to protect terrestrial features have grown to incorporate inland wetland objectives over time. South Africa's Kruger National Park is one example: originally designated to protect its large mammalian fauna, the riparian and riverine zones are estimated to support 50% of the park's biota and the park's management now includes an estimated 30 per cent inland wetland management focus. Ultimately, whether a protected area is considered 'inland wetland' may have as much to do with its management objectives as with its component habitats.

While there is evidence that some protected areas benefit the inland wetland systems within them irrespective of whether explicit inland wetland management is applied, there are numerous other examples of protected areas failing to protect their component inland wetland systems. In many instances, inland wetland ecosystems within protected areas have been deliberately altered to supply water and hydroelectricity, and even to facilitate wildlife viewing and other forms of recreation. What is needed is the integration of inland wetland considerations into the management of *all* relevant protected areas, including coastal marine protected areas. Management of 'terrestrial' protected areas could include, for example:

- ✓ Protecting or restoring longitudinal and lateral connectivity of stream corridors (e.g. Removing barriers, reconnecting rivers with floodplains, ensuring that roads within pas are not fragmenting stream systems)
- ✓ Protecting native faunas (e.g. Prohibiting exotic fish stocking or overfishing)
- ✓ Protecting native flora – particularly in riparian zones which may be neglected in the broader protected areas
- ✓ Managing aquatic recreational activities (e.g. Restricting motorized watercraft)
- ✓ Aggressively protecting water quality (e.g. Careful management of point-source discharges from park facilities)
- ✓ Protecting headwater flows so that downstream users can enjoy the benefits of ecosystem services
- ✓ Protecting or restoring riparian buffers both within a park and along a park's border if a river demarcates the border (and extending protected areas boundaries where possible using appropriate inland wetland ecosystem criteria -- for example, using catchment boundaries, not river channels, to demarcate areas)

Accounting of inland wetland protections

Whether or not protected areas are classified as 'inland wetland,' recording and accounting of inland wetland protections for the purposes of databases like the WDPA remains a challenge. Not only can measuring and interpreting the size of many wetlands be difficult, and in many cases wetlands vary greatly due to natural factors (e.g., seasonal flooding), and currently the WDPA has no provision for length measurements. Further, data on the global extent of inland wetlands remain insufficient, hampering a reliable calculation of the proportion of inland wetland systems occurring in protected areas worldwide. For instance, the Millennium Ecosystem Assessment provides a figure of 12 per cent protection for inland wetlands, a value generated by overlaying protected area polygons with inland wetlands categories of the Digital Chart of the World (DCW). However, the data used to calculate total habitat area for inland wetland categories are known to be unreliable and unrepresentative, and in particular do not adequately estimate the extent of seasonal or heavily vegetated wetlands. About 12 per cent of the earth's terrestrial surface occurs within protected areas, suggesting only that inland wetlands have not been intentionally excluded from existing protected areas. Until inland wetland conservation is incorporated into protected area management plans, and those management plans acknowledge processes and threats external to protected area boundaries, knowing the geographic extent of inland wetland systems within protected areas tells us more about conservation potential than conservation reality.

Table 7: **Examples of inland water protected areas in different IUCN categories**

Category	Example	Description
Ia	Srebarna Nature Reserve (Bulgaria)	A 600 ha Biosphere Reserve, World Heritage Site, and Ramsar Site designated to protect Srebarna Lake, located on the Danube floodplain. The reserve was set up primarily to protect the rich avifauna, especially waterfowl.
Ib	Avon Wilderness Park (Australia)	A 39,650 ha wilderness park covering entire catchments of the Avon River headwaters, designated for conservation and self-reliant recreation under the National Parks Act.
II	Pantanal National Park (Brazil)	A 135,000 ha national park (and Ramsar site) situated in a large depression functioning as an inland delta. The area consists of a vast region of seasonally flooded savannas, islands of xerophytic scrub, and humid deciduous forest.
III	Ganga Lake (Mongolia)	A 32,860 ha natural feature (and Ramsar site) encompassing a small brackish lake and associated lakes in eastern Mongolia within a unique landscape combining wetlands, steppe and sand dunes. The lake district is of great importance for breeding and stop-over waterbirds.
IV	Koshi Tappu (Nepal)	A 17,500 ha wildlife reserve running along the Sapta Kosi River and consisting of extensive mudflats and fringing marshes. The reserve contains Nepal's last surviving population of wild water buffalo.
V	Big South Fork (USA)	This national river and recreation area encompasses 50,585 ha of the Cumberland Plateau and protects the free-flowing Big South Fork of the Cumberland River and its tributaries. The area has largely been protected for recreational opportunities.
VI	Titicaca (Peru)	A 36,180 ha national reserve established to protect the world's highest navigable lake.

Table 8: **Compatibility of various inland water protection strategies with IUCN categories**

Type of protected area: descriptions normally refer to isolated entities - all can be incorporated as part of larger reserves	Compatibility with protected area category Ia	Ib	II	III	IV	V	VI	If outside I-VI, likely role in IRBM* conservation	Examples
Designation/recognition under an international convention or programme									
World Heritage Site	■	■	■	■	▒	▒	□	Low	Lake Malawi (Malawi)
Ramsar Site	■	■	■	■	■	■	■	Very high	Upper Navua CA (Fiji)
Biosphere Reserve	■	■	■	■	■	■	■	High	Dalai Lake (China)
Freshwater place-based protection mechanisms									
Free-flowing river	▒	■	■	■	■	▒	▒	High	Upper Delaware R. (US)
Riparian reserve/buffer	□	□	▒	□	■	■	■	High	Douglas R./Daly R. Esplanade CA (Aust.)
Floodplain reserve	■	▒	▒	■	▒	□	▒	High	Pacaya-Samiria (Peru)
Fishery/harvest reserve	□	□	□	□	▒	▒	▒	High	Lubuk Sahab (Indonesia)
Wetland game/hunting reserve	□	□	□	□	▒	▒	▒	Moderate	Ndumo Game Res. (SA)
Recreational fishing restricted area	□	□	□	□	□	□	■	Moderate	Onon River (Mongolia)
Protected water supply catchment	■	■	■	■	□	▒	■	High	Rwenzori Mts NP (Ug.)
Protected aquifer recharge area	□	□	□	□	■	□	□	High	Susupe Wetland (Saipan)
Other place-based mechanisms with potential freshwater benefits									
Marine reserve/coastal mgt. zone	■	▒	■	■	■	■	■	Low	Danube Delta (Romania)
Seasonally closed fishery	□	□	□	□	▒	▒	■	Moderate	Lake St. Antonio (Brazil)
Forest reserve	□	□	■	▒	▒	■	▒	Moderate	Sundarbans (Bangladesh)
Certified forest area	□	□	□	□	□	□	■	Moderate	Upper St. John R. (USA)

■ Particularly compatible with the protected area category
▒ Not incompatible with the protected area category
□ Not particularly or never suitable for the protected area category

*IRBM = integrated river basin management, see text

Table 9: **Most appropriate protected area categories for different types of inland wetland ecosystems**

Freshwater ecosystem type	**IUCN Category**							**Examples**
	Ia	Ib	II	III	IV	V	VI	
River systems								
Entire catchments	■	■	■					Kakadu National Park (Australia)
Entire river/stream or substantial reaches						■	■	Fraser Heritage River (Canada)
Headwaters			■					Craig Headwaters Protected Area (Canada)
Middle and lower reaches		■	■					Donana National Park (Spain)
Riparian zones			■				■	Douglas River \ Daly River Esplanade Conservation Area (Australia)
Sections of river channels				■		■		Hippo Pool National Monument (Zambia)
Gorges				■				Fish River Canyon Conservation Area (Namibia)
Waterfalls				■				Iguacu National Park (Argentina\Brazil)
Wetlands and lakes								
Floodplain wetlands			■			■	■	Mamiraua Sustainable Development Reserve (Brazil)
Lakes			■	■		■	■	Lake Balaton (Hungary)
Portions of lakes					■	■	■	Rubondo Island National Park (Tanzania)
Inland deltas	■		■		■		■	Okavango Delta Wildlife Management Area (Botswana)
Coastal deltas			■			■	■	Danube Delta Biosphere Reserve (Romania)
Coastal wetlands			■				■	Donana National Park (Spain)
Geothermal wetlands	■		■	■				Lake Bogoria (Kenya)
Springs	■		■	■				Ash Meadows National Wildlife Refuge (USA)
Alpine & tundra wetlands	■	■	■	■				Bitahai Wetland (China)
Freshwater swamps	■		■	■	■		■	Busanga Swamps (Zambia)
Peatland	■		■	■	■			Silver Flowe (UK)
Subterranean wetlands								
Karstic waters & caves	■			■				Mira Minde Polje and related Springs (Portugal)

7.4. Forest protected areas

Nigel Dudley and Adrian Phillips

Background

There is confusion about forest protected areas and in particular what "counts" as a protected area in this context. These issues came to prominence because the UNECE/FAO *Temperate and Boreal Forest Resource Assessment*, and various regional criteria and indicator processes for sustainable forest management, require governments to be specific about the number and extent of forest protected areas in their countries. Some of these questions also apply in reporting to the Convention on Biological Diversity. The guidelines address a series of issues including:

- ✓ Definition of a forest in the context of forest protected areas
- ✓ Applying the IUCN category systems to forests
- ✓ Calculating the extent of forest protected areas
- ✓ What areas fall outside the IUCN definition of a forest protected area?
- ✓ Distinguishing biological corridors, stepping stones and buffer zones inside

Definition of a forest in the context of forest protected areas

The definition draws on that of UNECE/FAO and adds interpretation from IUCN (box 5).

Box 5: UNECE/FAO definition of forest

Forest: Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 ha. The trees should be able to reach a minimum height of 5 m at maturity *in situ*. A forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground, or open forest formations with a continuous vegetation cover in which tree crown cover exceeds 10 per cent. Young natural stands and all plantations established for forestry purposes which have yet to reach a crown density of 10 percent or tree height of 5 m are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention or natural causes but which are expected to revert to forest.

Includes: Forest nurseries and seed orchards that constitute an integral part of the forest; forest roads, cleared tracts, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas, such as those of special scientific, historical, cultural or spiritual interest; windbreaks and shelterbelts of trees with an area of more than 0.5 ha and width of more than 20 m; plantations primarily used for forestry purposes, including rubberwood plantations and cork oak stands.

Excludes: Land predominantly used for agricultural practices.

Other wooded land: Land either with a crown cover (or equivalent stocking level) of 5-10 percent of trees able to reach a height of 5 m at maturity *in situ*; or a crown cover (or equivalent stocking level) of more than 10 percent of trees not able to reach a height of 5 m at maturity *in situ* (e.g. dwarf or stunted trees); or with shrub or bush cover of more than 10 percent.

Policy guidance: The UNECE/FAO definition (box 5) should be used for forests in Forest Protected Areas with the following caveats:

- ✓ Planted forests whose principal management objective is for industrial roundwood, gum/resin or fruit production should *not* be counted
- ✓ Land being restored to natural forest *should* be counted if the principal management objective is the maintenance and protection of biodiversity and associated cultural values
- ✓ "Cultural forests" should be included, *if* they are being protected primarily for their biodiversity and associated cultural values

Applying the IUCN category systems to forests

Much of the potential confusion about what is or is not a protected area can be avoided if the hierarchical nature of the definition is stressed, and the system is applied sequentially. In short, the categories are only to be applied if the area in question already meets the definition of a protected area. Even after a protected area has been correctly identified, mistakes are possible in deciding into which category to assign it. Two questions arise:

- ✓ *How much of a protected area should be forest before it is counted as a Forest Protected Area?* Some important forests within protected areas may in fact be a

minority habitat, such as relic forests, riverine forests and mangroves. This creates problems of interpretation and data availability. Should forest statisticians differentiate the fractions of protected areas that contain forests?

- ✓ *Is all the forest in a protected area automatically Forest Protected Area?* Some protected areas, particularly categories V and VI, may contain areas of trees that are not protected forests. Examples include exotic plantations in many category V protected areas in Europe. **These do not meet the definition of a forest proposed for use in protected areas outlined in box 6** but currently they are sometimes recorded as being "protected" – and thus can appear in official statistics as "Forest Protected Areas".

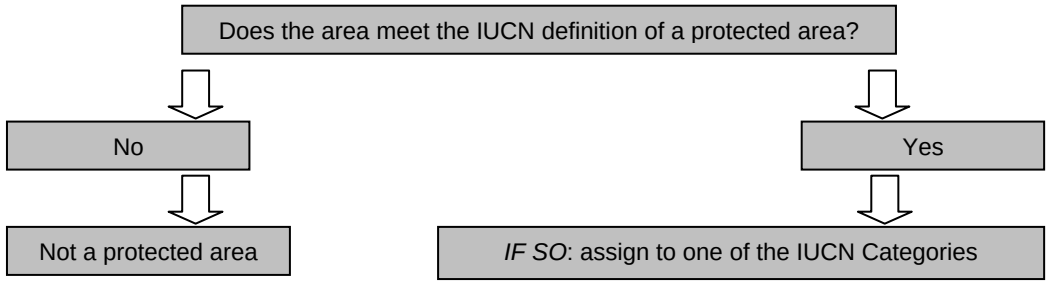
It is important that a standardised procedure is followed in determining the extent of Forest Protected Areas that gives meaningful and accurate data. Calculation should follow the sequence shown in the Guidelines below. Forest Protected Areas can be calculated as an unambiguous subset of national protected area statistics, capturing information on all protected forests but eliminating plantations within the less strictly protected categories.

Calculating the extent of forest protected areas

When statistics are required that specifically relate to forests, it is necessary to identify that portion of protected areas that contains forest. This will seldom be straightforward: many protected areas contain some forest, even "forest protected areas" are often not entirely forest and in addition calculation sometimes needs to take into account forests within broader scale landscape protection that do not meet the identification criteria listed above.

Box 6: Policy guidance and interpretation

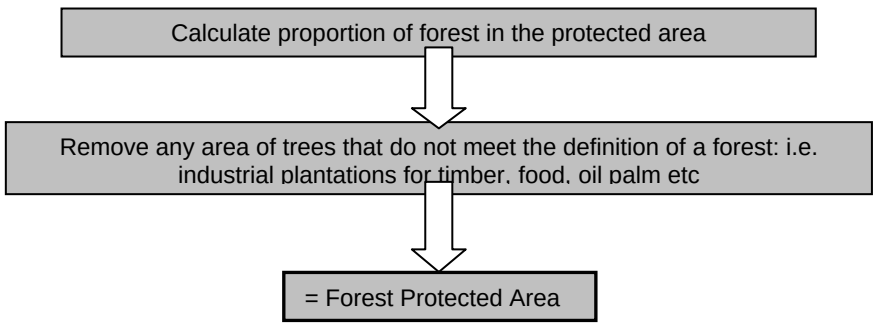
The process of assignment should therefore *begin* with the IUCN definition of a protected area and then be *further refined* by reference to the IUCN categories:



It follows that ***any area that appears to fit into one of the categories based on a consideration of its management practices alone, but which does not meet the general definition of a protected area, should not to be considered as protected area as defined by IUCN***.

Policy guidance

Calculation of Forest Protected Area includes the following steps:



What areas fall outside the IUCN definition of a forest protected area?

There are many forest uses – some with high social and ecological or biological values – that lie outside the precise IUCN definition, and some examples being given below.

Policy guidance: The following are *not* automatically Forest Protected Areas:

- ✓ Forests managed for resource protection other than biodiversity – e.g. forests set aside for watershed or drinking water protection, avalanche control, firebreaks, windbreaks and erosion control
- ✓ Forests managed primarily as a community resource – e.g. forests managed for non-timber forest products, fuelwood and fodder, recreational or for religious purposes
- ✓ Forests managed as a strategic resource – e.g. as a emergency supply of timber in times of conflict
- ✓ Forests with unclear primary management objectives resulting in biodiversity protection being considered as an equal or a lesser priority along with other uses
- ✓ Forests set aside by accident – e.g. woodland in the central reservation or verges of motorways, forest maintained for military or security reasons.

Some examples are given in Table 10 below.

Table 10: **Examples of Forest Protected Areas, and also of well conserved forests that are not Forest Protected Areas**

Type of forest	Example	Notes
Examples of Forest Protected Areas		
IUCN category Ia protected area	Wo Long Nature Reserve, Sichuan, China	A strict nature reserve, established primarily to protect the giant panda, including a captive breeding centre
IUCN category II protected area	Huerquehue National Park, Chile	This national park is entirely protected (there are some properties within it, but excluded from the protected area, that are used for ecotourism). It was established mainly for the preservation of the unique *Araucaria* (monkey puzzle) forests.
IUCN category III	Monterrico Multiple Use Area, Guatemala	This is a coastal area with the largest remaining block of mangrove in the country, plus turtle beaches and several marine communities. Mangroves are managed for protection and artisanal fishing.
IUCN category IV	Dja Faunal Reserve, Cameroon	This is in the southeast of Cameroon in the Congo Basin. Many people live in and around the reserve including tribes of *baka* (pygmy) people. Active management is needed to control the bushmeat trade and to help restore areas of forest.
IUCN category V	Sugarloaf Mountain, Brecon Beacons National Park, UK	The woods on the side of the mountain are owned and managed as a nature reserve by the National Trust, a large UK NGO, although limited sheep grazing is permitted within the Forest Protected Area. Surrounding hills are used for sheep pasture.
IUCN category VI	Talamanca Cabécar Anthropological Reserve, Costa Rica	Some forest use is permitted in this reserve, particularly by indigenous peoples, but most of it remains under strict protection.
Examples of forests that are not Forest Protected Areas		
Forest in IUCN category V	Plantation forest within the Snowdonia National Park, Wales, UK	Although the plantation is within the category V protected area, it is an entirely commercial, state-owned timber plantation of exotic species and as such does not constitute a Forest Protected Area.
Forest in IUCN category VI	Extractive Reserve of Alto Juruá, Brazil	The 53 per cent of the reserve that is used for extractive purposes is not a Forest Protected Area, while the remaining area is fully protected.
Forest managed for environmental control	Brisbane watershed, Queensland, Australia	The catchment around Brisbane is set aside from logging and other disturbance so as to maintain the city's water supply. The forest is strictly conserved but not as a protected area as there is no special purpose of biodiversity protection, although there are some small protected areas within it.

Type of forest	Example	Notes
Forest managed by the community	The local community in Kribi, west Cameroon	Local people are managing a forest under a project being facilitated by WWF. The forest seeks to provide benefits to both local people and the environment, but is not designated as a protected area (and does not have special biodiversity protection aims).
Forest managed for multiple purposes	Forests of the Jura Mountains, Switzerland	Swiss forest policy stresses multiple purpose management, selective logging and conservation. The Jura is a valuable resource for both local communities and wildlife. However, the region is not a protected area, although there are some protected areas within it.
Forests protected by accident	Forests on the border between South and North Korea (the de-militarised zone)	Large areas of forest are completely conserved by exclusion for defence purposes, but this situation could alter if there is a political change.

Finally, IUCN provides guidelines for identifying when some important linking habitats – such as corridors and buffer zones, fall inside or outside definitions of a protected area (table 11).

Table 11: **Distinguishing biological corridors, stepping stones and buffer zones inside and outside protected areas**

Element	Description	Examples
Biological corridor	Area of suitable habitat, or habitat undergoing restoration, linking two or more protected areas (or linking important habitat that is not protected) to allow interchange of species, migration, gene exchange etc	**Protected areas** ▪ Designation of an area of forest linking two existing protected forests as a fully protected area with an IUCN category **Not protected areas** ▪ Areas of forest certified for good management between Forest Protected Areas ▪ Area of woodland connecting two protected areas voluntarily managed for wildlife by landowner on a temporary basis ▪ Areas of forest covered by a conservation easement held by government or private conservation organisation
Ecological stepping stone	Area of suitable habitat or habitat undergoing restoration between two protected areas or other important habitat types that provides temporary habitat for migratory birds and other species	**Protected areas** ▪ Relic forests managed to provide stopping off points for migrating birds **Not protected areas** ▪ Woodlands set aside by farmers under voluntary agreements and government compensation to provide temporary habitat for migrating birds
Buffer zone	Area around a core protected area that is managed to help maintain protected area values	**Protected area** ▪ Forest area at the edge of a protected area that is opened to community use under controls that are nature-friendly and do not impact on the primary aim of nature conservation. Typically a category V or VI protected area surrounding a more strictly protected core (I-IV). In some countries, buffer zones are legally declared as part of protected area. **Not a protected area** ▪ Forest area outside a protected area that is managed sensitively through agreements with local communities, with or without compensation payments

The paper summarises key parts of **Forests and Protected Areas**, volume 12 of the Best Practice Protected Area Guidelines Series published by Cardiff University and IUCN.

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IPIECA/OGP BDWG Perspectives regarding the IUCN Category System of Protected Areas

The International Petroleum Industry Environment Conservation Association/Oil and Gas Producers Association Biodiversity Working Group (IPIECA/OGP BDWG) welcomes the opportunity to input into this important and timely Summit and the process thereafter. We present below our perspectives with regards to protected areas and the IUCN Categories System and recommendations for its' strengthening.

Position on the IUCN Categories System

1. IPIECA/OGP BDWG Members recognise the importance of protected areas.
2. IPIECA/OGP BDWG Members recognise the need for a global framework for categorising protected areas.
3. The IUCN Category System presents the only globally recognised system, albeit with a number of current weaknesses[1].
4. Many IPIECA/OGP BDWG Members consider protected areas including those with an assigned IUCN Category, and other areas of high conservation value, within their internal risk assessments.
5. IPICEA members recognise that Governments may determine that oil and gas activity at certain times may be incompatible with the conservation objectives of an area. We believe this to be an activity, site and time specific issue and a decision for Governments.
6. The IUCN Category System is not designed to determine such no-go decisions. The System is not designed to take into account site-specific situations and changes in technological capability.

Considerations for strengthening the IUCN Category System

1. Increased coverage of IUCN Categories for all protected areas.
2. Stronger and more transparent and inclusive framework for dealing with disputes, and possibly some independent means of verifying that the correct category has been applied.
3. Linking the category system to management effectiveness.

Chris Morris
General Secretary (on behalf of the IPIECA/OGP BDWG)

[1] We refer to the various recommendations made within the Final Report of "Speaking a Common Language – The uses and performance of the IUCN System of Management Categories for Protected Areas". Published by Cardiff University, IUCN – The World Conservation Union and UNEP-World Conservation Monitoring Centre, 2004.

7.6. Urban protected areas

Pete Frost on behalf of the WCPA / IUCN Task Force on Cities and Protected Areas

Introduction

The Cities and Protected Areas Task Force recommends the inclusion of urban protected areas within the IUCN protected areas categories. The task force believes this will lead to conservation gains through safeguarding access to nature by the 50 per cent of our species who live in towns and cities, thereby securing wide popular and political support for protected areas of all categories both inside and outside urban areas.

Background

Biodiversity conservation is a fundamental need of our species at this point in our evolution, though the means by which this may be achieved are open to discussion. The protected areas approach suggests that the means include territory and the political will to protect biodiversity on that territory. Whichever means are decided upon, resources will be required and those resources will only be released if governments, institutions and individuals can be motivated to allocate them to the conservation of biodiversity rather than other competing purposes.

In democracies, the electorate is the ultimate motivation for the release of resources from governments, otherwise influential people and institutions are key. People and their decisions are therefore the fundamental basis for the conservation of biodiversity. However, now that the majority of the world's population lives in towns and cities – including the rich and influential – their understanding of and empathy for the natural environment cannot be taken for granted. The marketing industry understands far better than the conservation movement that information alone does not influence resource allocation.

Telling people that nature must be protected is not enough: people must have a positive, personal connection to nature if they are to choose to allocate resources to it.

In an urbanized world, where the majority of the population have weakened connections to 'deep' biodiversity, there is little incentive for them to allocate, or support the allocation of the resources required for biodiversity conservation. Concerns of everyday life - jobs, security, sanitation, transport - predominate. However, where a connection to local biodiversity can be made, or maintained then the will can be found for conservation because nature still has meaning - as witnessed by the survival of 'sacred groves' in towns and cities throughout south east Asia.

The inescapable conclusion is that people require positive contact with nature where they live in order to maintain the motivation to protect nature in general. Or, to put it another way: the urban nature park is crucial for the survival of the wilderness preserve.

However, it is at best unclear how the normally small scale, highly modified urban and peri-urban protected areas fit into the IUCN categories. By definition these areas conserve species and ecosystems (even if these are the last, highly modified remnants of the once-common) but their key role is to maintain that precious human connection to nature. In areas like the UK and the affluent post-industrial countries this is not normally a problem. Protected area systems in such countries are well developed and robust enough that the lack of an IUCN category will not imperil the designation or operation of an urban protected area. However, in the newly industrialising nations where protected area legislation draws heavily on IUCN's lead, the absence of clear guidance on protected areas in towns and cities is a potential disaster for the will to protect biodiversity in the deeper countryside.

There is however, a double benefit if IUCN can be seen to be championing the cause of urban protected areas - they bring the ecosystem goods and services which make life tolerable - or even possible - in modern towns and cities. Durban's metropolitan open spaces system is an excellent case in point. Explicit promotion of protected areas in towns and cities could give IUCN even greater relevance and political influence by showing the synergy between human need and biodiversity conservation in the places where the majority of the world's population live.

Recommendations

The Cities and Protected Areas Task Force would like to recommend therefore that IUCN formally incorporates urban protected areas into the protected area categories.

We suggest this might be done most easily by incorporating the following wording into the definition of category IV protected areas as a supporting objective to the primary objective:

"To provide a means by which the residents of towns and cities may obtain regular contact with nature close to where they live, for the benefit of their physical health and mental well being, and to promote support for the conservation of nature in general."

We also note that urban and peri-urban protected areas cut across almost all IUCN categories and recommend further discussions are held to decide how to respond to this reality for the greater benefit nature and nature conservation.

8. Categories and conservation conventions

A number of other important international designations relate to protected areas and the way that they interact with the IUCN categories has caused confusion in the past. This has particularly been the case with the two UNESCO designations: natural and cultural World Heritage sites and Man and the Biosphere reserves; and sites listed under the Ramsar Convention protecting inland and estuarine wetlands of international importance. Many sites were also protected areas; some had categories and some did not. Some countries ended up counting them twice in international statistics and clearly some greater clarification is needed.

Representatives from the secretariats at World Heritage and Ramsar produced detailed analyses of how their own designations overlap with and relate to the six IUCN management categories.

8.1. Wetlands of international importance and the IUCN system of protected area management categories

Ramsar Secretariat

Introduction

Over the years, there has been some confusion and uncertainty about the relationship between Wetlands of International Importance and the IUCN system of protected area management categories (as used by IUCN's World Commission on Protected Areas - WCPA). The adoption in 1994 of a revised management categories system, by the 19th session of the IUCN General Assembly, and the publication (CNPPA/WCMC, 1994) of guidelines about that system, followed by extensive discussion on this topic *inter alia* at the Vth World Parks Congress (Durban, South Africa, 2003) suggest clarification of the relationship is timely.

This paper seeks to demonstrate that the IUCN management categories system is not only compatible with Wetlands of International Importance as defined and managed by the Convention on Wetlands (Ramsar, Iran, 1971), but that it can inform the planning, management and effectiveness of those sites. Also, we aim to illustrate by examples the practical application of the revised system of protected area management categories to Biosphere Reserves.

Protection status of Ramsar Sites

The Ramsar Convention encourages Parties to designate and manage important wetlands in a way that does not change their ecological character. While many of these Wetlands of International Importance (Ramsar Sites henceforth) also have other protection status (e.g., are protected areas under natural legislation, World Heritage sites or UNESCO biosphere reserves), there is no *obligation* for Ramsar sites to be legally protected areas **under national legislation**. Indeed, this sometimes helps to persuade governments to designate sites under Ramsar when they would be reluctant to make them protected areas under national legislation.

Of course, the legal protection afforded by the Convention is itself a legal support, but not always so clearly articulated. This distinction is implied, although not often stated as baldly, in Ramsar literature.

For example, the *Criteria for Identifying Wetlands of International Importance* makes no reference to protection status. The *Information Sheet on Ramsar Wetlands* implies that protection status is not mandatory, with phrases such as: "If a reserve has been established" and "If appropriate, list the IUCN (1994) protected areas category/ies". The *Ramsar Convention Manual* (2006) is explicit: "Designating a wetland for the Ramsar List does not in itself require the site previously to have been declared a protected area. In fact, listing under the Ramsar Convention, especially in the case of sites subject to intensive use by human communities – either to extract resources or to benefit from the natural functions of the wetland – can provide the necessary protection to ensure its long-term sustainability. This can best be achieved by preparing and implementing an appropriate management plan, with the active participation of all stakeholders. "

In fact, listing of a wetland under the Ramsar Convention, especially in the case of sites subject to intensive use by human communities should provide **the necessary protection** to ensure its long-term sustainability. Listing under the Ramsar Convention elevates the sites to a higher status (recognized as places of "international importance"), focuses more attention upon them, and should contribute to their long-term conservation and wise use – whether or not Ramsar status conveys additional legal protection in-country depends upon the national and local policy and legislation concerning Ramsar Sites. Human uses of wetlands are indeed compatible with listing under Ramsar, provided that they are in line with the Ramsar concept of "wise use" (sustainable use) and do not lead to a negative change in ecological character.

It is unclear whether all the Parties regard inclusion on the List as, in effect, meaning that the site becomes a protected area, whether or not it has been given an IUCN category). Ramsar designation implies an obligation to manage the site wisely (i.e. maintain its ecological character), which *suggests* protection status. Many sites are listed in the WDPA, which also implies that they may be protected areas, but so are other designations of land use that are clearly not protected

areas (for example some military lands, World Heritage sites that are not protected areas etc) and this may reflect confusion in the WDPA.

The Ramsar Secretariat certainly has sometimes seen the List as a set of "protected areas": for example the document *Emergency solutions seldom lead to sustainability* gives "an introduction to the concept of Wetlands of International Importance ***as a network of protected areas***" (emphasis mine). Conversely, Recommendation 4.4, recognising the value of establishing nature reserves on wetlands of diverse types and sizes, and the value of reserves in promoting conservation education and public awareness of the importance of wetland conservation and the goals of the Convention, urges Contracting Parties to "establish national networks of nature reserves covering both listed and non-listed wetlands".

There is recognition that there is thus some confusion. It was agreed at COP9 (Resolution IX.22) to include data about the IUCN category within the database of Ramsar sites: "The Conference of the Contracting Parties … AGREES to include as extra data fields in the approved Ramsar Information Sheet for the designation of Wetlands of International Importance from COP9 onwards the following: Protected area categories, if any, for the site, as established by each Contracting Party, and/or IUCN categories (1994), if appropriate, and any other relevant designations".

So, in summary, Ramsar sites (WII) are protected areas *sensu* the IUCN-WCPA definition. What is clear, though, is that a Ramsar site may be equivalent to a particular IUCN protected area category, or it may be equivalent to several categories, or none, or partly covered by an IUCN protected area category.

Recent developments

Recently a number of leading freshwater biodiversity and protected area experts, gathered together for a summit at the Skukuza Camp in Kruger National Park to begin to tackle questions related to the efficacy of protected areas as a strategy for conserving freshwater biodiversity features.

One of the very basic issues addressed at the meeting was the very definition of "protected areas" as used by IUCN and WCPA. The group felt the existing definition perhaps reflects the neglect freshwater biodiversity has suffered. The group has proposed some changes to the IUCN definition to make freshwater areas more explicit; *viz. "An area of land, inland waters and/or sea especially dedicated to the protection and maintenance of biological diversity and requisite ecological processes, ecosystem services, and of natural and associated cultural resources, and managed through legal or other effective means."*

This is a somewhat cumbersome elaboration on the existing definition - however it does for the first time include the idea that protected areas are important for the provision of ecosystem services. What it does not do well is convey the need for protected areas, especially those with water as a component, such as MPA's, freshwater sites etc, to be linked to other such protected areas, and the surrounding land- or seascape elements which nurture them.

A simplified version to take account of these issues, while not over-emphasising one ecosystem at the expense of the rest might be; *"An area of land or water dedicated to the maintenance of biological and cultural diversity, and continued delivery of ecosystem services, which may be managed through legal or other effective means, and which is linked effectively to supporting elements of surrounding ecosystems.."*

This definition includes marine areas as water, as well as all other water bodies, fresh, brackish, saline or calcareous. However the idea that protected areas are dynamic components of the land/seascape, delivering a wide range of services to people is much more appealing than the former static definition. And by providing a statement on the need for broader linkages the dynamic nature of, especially, freshwater ecosystems is also covered, as are coastal wetlands. Such a definition very clearly covers all Ramsar sites.

The categories system and Ramsar

In the original version of the management categories, Biosphere Reserves and World Heritage sites were identified as a category in their own right, yet Ramsar sites were not so identified. Subsequently, the 1994 guidelines did not treat any named category as a unique category, quite rightly.

Ramsar sites are nationally-designated. The IUCN categories system is a means of classifying them on the basis of management objectives. Ramsar sites cut right across this approach because the very concept embodies the idea of a range of management objectives.

On the other hand, some Ramsar sites often contain a series of management zones with differing management objectives, each of which may correspond to a category in the IUCN system. Some may consist of a number of different use categories.

It may indeed be that some Ramsar sites include parts which are subject to several different management objectives. The 1994 guidelines, therefore, observe that Biosphere Reserves, like World Heritage (natural sites) and Ramsar sites are not a management category in their own right, but an international designation. However, the Ramsar site, or the constituent protected area(s) making up a Ramsar site, would be categorised under the IUCN system according to the rules set out above. In addition, the guidelines comment that:

The following principle should apply: providing that the area is identified under national arrangements for special protection, it should be appropriately recorded under one (or more) of the standard (i.e. six) categories. Its special international status will be recorded (separately), for example, in the UN List and in all other appropriate IUCN publications.

Applying the categories to Ramsar sites

Under the IUCN categories system protected areas are classified according to management objectives. A classification system of this type serves a number of valuable purposes in the international context as it:

- ✓ emphasises the importance of protected areas;
- ✓ demonstrates the range of purposes protected areas serve;
- ✓ promotes the idea of protected areas as systems;
- ✓ reduces nomenclatural confusion;
- ✓ provides an agreed international set of standards;
- ✓ facilitates international comparison and accounting; and
- ✓ improves communication and understanding.

Five principles emerge from the categories system.

1. The basis of categorisation is by primary management objective.

This principle is the most important of all. There are, in fact, a wide variety of potential primary management objectives for protected areas. According to the priority assigned to relevant objectives, a categorisation system logically follows, as table 12 shows.

Table 12: **Matrix of management objectives and IUCN categories**

Management Objective	*Ia*	*Ib*	*II*	*III*	*IV*	*V*	*VI*
Scientific research	1	3	2	2	2	2	3
Wilderness protection	2	1	2	3	3	-	2
Species/genetic diversity preservation	1	2	1	1	1	2	1
Maintenance of environmental services	2	1	1	-	1	2	1
Protection of natural/cultural features	-	-	2	1	3	1	3
Tourism and recreation	-	2	1	1	3	1	3
Education	-	-	2	2	2	2	3
Ecologically sustainable use	-	3	3	-	2	2	1
Maintenance of cultural attributes	-	-	-	-	-	1	2

Key: 1 Primary objective; 2 Secondary objective; 3 Potentially applicable objective; - not applicable

2. Assignment to a category is not a comment on management effectiveness

The distinction between the primary management objective and the effectiveness of management is often overlooked, and in the past, has led to confusion. There are, in fact, two separate questions involved. Firstly, what is the aim of management (leads to assignment to a category) and secondly, how well is an area managed (leads to an assessment of management effectiveness)? For instance, where category II areas have been poorly managed and subjected to inappropriate economic exploitation in the past, some have been re-classified as category V areas. The IUCN categories system is based on *management objective*, not actual level of management.

3. The categories system is international

The IUCN categories system has been designed for global use. The guidance, therefore, is broad and general rather than prescriptive and specific. The system is intended to be interpreted flexibly.

Because the IUCN classification system is based on broad guidelines, it is appropriate that regions or countries should interpret them for their own application. This flexibility allows national relevance to be built into the system. Initial assignment to an IUCN category, therefore, is a matter for the relevant state or national government.

4. All categories Are Important

All categories are equally important and equally relevant to conservation.

5. The categories imply a Gradation of Human Intervention

The IUCN categories imply a gradation of human intervention, ranging from effectively none at all in the case of some category I areas to quite high levels of intervention in category V areas. Since category VI was added to the system later it does not fit neatly into the general pattern, but lies conceptually between III and IV (figure 7).

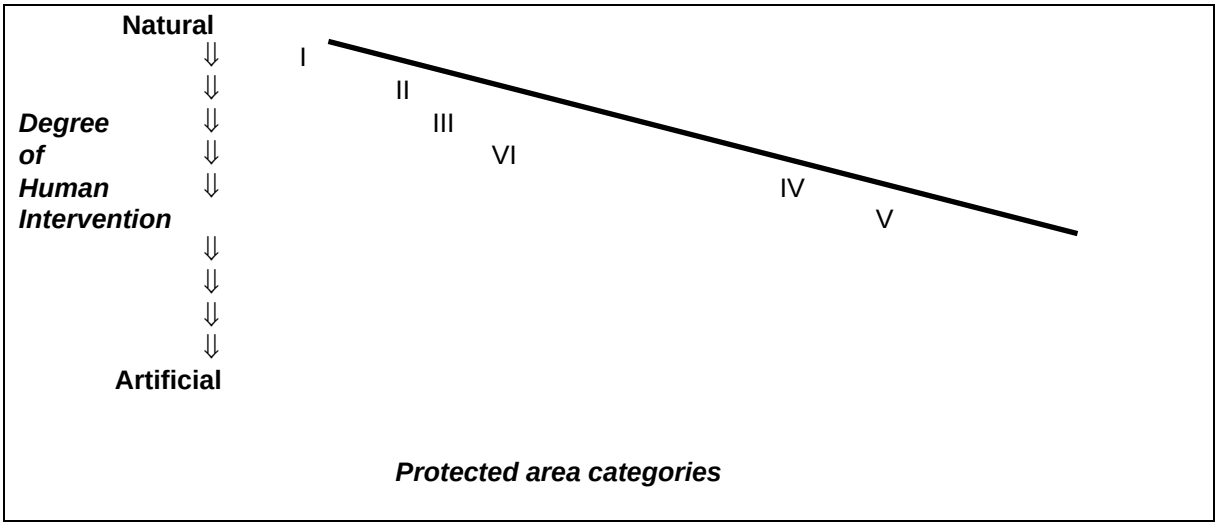


Figure 7: **Idealised representation between protected area category and the degree of human intervention. Landscapes dominated by human activities and management have few, higher type, protected areas.**

The determination of the correct IUCN category is normally undertaken by the management authority, based on the IUCN guidelines and subject to endorsement by. Although this body is often the same as the Ramsar site management authority, in some cases they will differ. In either case, the assignment exercise would be assisted by the following guidance. The IUCN guidelines provide several ways in which the many different situations likely to be found within Ramsar sites can be reconciled with the categories system. The approach recommended here involves two stages:

Stage I: *identify whether the whole Ramsar site should be classified under one, or more than one, category.*

To do this, it is necessary to establish which of three theoretical possibilities applies:

1. *There is only one management authority for the entire* Ramsar *site and, for legal purposes; the whole Ramsar site is classified by law as having one primary management objective.*

   The area would be assigned to a single category.

While the guidelines require that the assignment be based on the primary purpose of management, they also recognise that management plans often contain management zones for a variety of purposes to take account of local conditions. In order to establish the appropriate category, at least three-quarters, and preferably more, must be managed for the primary purpose; and the management of the remaining area must not be in conflict with that primary purpose.

2. *There is one management authority responsible for two or more areas making up the Ramsar site, but each such area has separate, legally defined management objectives.*

The guidelines recognise this situation by acknowledging that "protected areas of different categories are often contiguous, while sometimes one category 'nests' within another". Thus many category V areas contain within them category I and IV areas: some will adjoin category II areas. Again, some category II areas contain category Ia and Ib areas.

In this case the separate parts of the Ramsar site will be categorised differently.

3. *There are two or more management authorities responsible for separate areas with different management objectives, which jointly make up the Ramsar site*

Here, too, the correct interpretation of the guidelines would be to *categorise these areas separately.*

Stage II: *assignment of parts of the Ramsar site to individual categories.*

Nonetheless, it should be clear that the categories system can be applied to a range of different legal and management situations which characterise Ramsar sites in different countries. This is indeed entirely in line with the way in which the system is intended to be applied. The IUCN guidelines state that protected areas should be established to meet objectives consistent with national, local or private goals and needs (or mixtures of these) and only then be labelled with an IUCN category according to the management objectives. These categories have been developed to facilitate communication and information, *not* to drive the system. Such a system is envisaged by the current work programme on protected areas adopted by the CBD.

Benefits

The benefits of a system that can be applied internationally, in a transparent way, are significant. The principal advantage, in the context of this paper, is that it allows global assessments of the existing Ramsar sites. Furthermore it facilitates development and further establishment of a Ramsar site system in which each country can maintain its individual Ramsar site network, yet be clearly part of a global framework. It also allows the Ramsar site network to relate and contribute to the development of a globally comprehensive, adequate and representative system of protected areas.

8.2. World Heritage and IUCN categories

Marc Patry, UNESCO World Heritage Centre

Introduction and context

The two main aims of this short paper are to:

- ✓ Explain how natural World Heritage relates to the IUCN definition of protected areas
- ✓ Explain how natural World Heritage relates to the IUCN management categories

To do so requires a short review of the pertinent sections of the World Heritage (WH) Convention's Operational Guidelines (OG), which provide the technical guidance in the application of the Convention. It is important to note from the outset that the OG have been developed over time and have also been evolving to accommodate a more detailed understanding of the application of the WH Convention gained from over 25 years of implementation. For this reason, a case study analysis of the application of the WH Convention may reveal inconsistencies if measured by the standards of the 2005 OG.

This paper seeks to achieve its two stated objectives based primarily on the application of the WH Convention under the 2005 OG, but will also rely on short case studies to illustrate specific points. Finally, for the sake of brevity and simplicity, this paper will focus its discussion mainly on sites inscribed on the list of WH under criteria (ix) and (x) – that is, for ecosystem and biodiversity values, and will discuss those natural WH sites inscribed for exceptional beauty or superlative natural phenomena (vii) or for geological features (viii) only to help illustrate specific points.

The World Heritage Convention's Operational Guidelines

The OG explain that an area may be inscribed onto the list of WH only if strict conditions integrity and conservation are met (OG para. 88). For a site to meet conditions of integrity, it must:

i. include all elements necessary to express the *Outstanding Universal Value*[33] for which it is being nominated for inscription to the WH list.

ii. be of adequate size to ensure the complete representation of the features and processes which convey the site's significance;

iii. not suffer from adverse effects of development and/or neglect.

Paragraphs 94-95 of the OG include a detailed description of what consists of integrity for the two criteria being considered in this paper: In particular:

- ✓ *criteria ix (ecosystems):* the site should have sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long term conservation of ecosystems and the biological diversity they contain.
- ✓ *criteria x (biodiversity):* the site should contain habitats for maintaining the most diverse fauna and flora characteristics of the bio-geographic province and ecosystems under consideration.

The OG also acknowledge that "*no area is totally pristine and that all natural areas are in a dynamic state, and to some extent involve contact with people. Human activities, including those of traditional societies and local communities, often occur in natural areas. These activities may be consistent with the OUV of the area where they are ecologically sustainable.*" (OG para. 90). This paragraph clearly opens the door to a variety of human activities within WH sites.

Finally, the OG include a lengthy section entitled Protection and Management (para. 96-118) which outlines measures for the long term conservation of protected areas being nominated for WH consideration. Specifically, paragraph 97 states that: "*All properties inscribed on the World Heritage List must have adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding. This protection should include adequately delineated boundaries.*"

Paragraph 98 of the OG further adds that: "*Legislative and regulatory measures at national and local levels should assure the survival of the property and its protection against development and change that might negatively impact the outstanding universal value, or the integrity ... of the property.*

[33] OUV is a term employed in the World Heritage Convention, referring to the combination of those heritage values of a site that demonstrate how it is of global value.

States Parties should also assure the full and effective implementation of such measures."

In regards to the relationship between nominated sites and existing protected areas, the OG state, in paragraph 102, that: "*The boundaries of the nominated property may coincide with one or more existing or proposed protected areas, such as national parks or nature reserves, biosphere reserves [...]. While such established areas for protection may contain several management zones, only some of those zones may satisfy criteria for inscription.*"

This last statement implies (somewhat as a counterbalance to the statement in OG para. 90 - see above), that not all areas already benefiting from some type of legal protection might qualify for WH status, i.e. some forms of legal protection are not restrictive enough to satisfy the OG requirements.

OG paragraph 119 deals with sustainable uses permitted within WH sites: "*World Heritage properties may support a variety of ongoing and proposed uses that are ecologically [...] sustainable. The State Party and partners must ensure that such sustainable use does not adversely impact the outstanding universal value, integrity [...] of the property. [...]. For some properties, human use would not be appropriate.*"

The OG makes no reference at all to "protected areas" nor to IUCN protected area categories, however, one can conclude that areas not under any particular protection regime should be excluded from WH sites (e.g. OG paragraphs 97 and 102).

Table 13: **Case Studies**

Site Name	WH Criteria	IUCN Cat.	Year Inscr	Discussion
Galapagos Islands Ecuador	vii, viii, ix, x	II (ter) IV (mar)	1978	Among the first batch of nominations ever submitted for inscription to the list of WH, the terrestrial (ter) boundaries of the site do not exclude the agricultural and settlement areas, resulting in a WH site today that includes extensive cattle ranches and densely populated urban areas. The site was extended to include a marine (mar) reserve in 2001, which contains a mix of low intensity multiple use zones (diving, artisanal fishing).
Great Barrier Reef Australia	vii, viii, ix, x	V	1981	A multiple use zone, with a variety of permitted uses, from strict conservation to recreational, including fishing. In its nomination evaluation report, IUCN suggested that the actual WH boundaries be limited to the fully protected core area (such comments not observed in the Galapagos nomination evaluation), but ends up recommending, in the same report, that the nomination as originally proposed be inscribed.
Lake Baikal Russia	vii, viii, ix, x	Ia, II, IV	1996	This site consists of several distinct conservation management entities, along with non-conservation lands (e.g. coastal protection zones) of limited conservation value. A range of potentially incompatible uses occur in this site, including commercial fishing, logging, agriculture, hunting, and tourism. Several small settlements also occur in the site. Original recommendations for the WH Site boundary had included a much vaster area, including major cities, but a smaller area with fewer conflicting uses was finally inscribed.
East Rennell Solomon Islands	ix	n/a	1998	Approximately 800 people of Polynesian origin reside in the site. Subsistence agriculture, fishing and hunting are carried out. The local people rely on forest products for most construction materials. The land is under customary ownership and a freshwater lake is regarded as common property. Customary ownership makes it difficult for the central government to play a formal role in conservation.

Site Name	WH Criteria	IUCN Cat.	Year Inscr	Discussion
Peninsula Valdès Argentina	x	II, IV, VI	1999	A collection of 7 distinct protected areas, along with significant (e.g. >50%) proportion of private lands. Landowners encouraged to collaborate through a joint management planning exercise, though not apparently legally bound to do so. Current threats include land subdivision for coastal residential development. This site appears to be an experiment in private land ownership within a natural WH site.
Discovery Coast Atlantic Forest Reserves Brazil	ix, x	Ia, II	1999	A series of 8 distinct protected areas spread over 450km, and nested within a 1 million hectare Biosphere Reserve – interstitial lands are largely privately owned.
Cape Floral Region Protected Areas South Africa	Ix, x	Ib, II, IV	2004	The inscription of this serial site is the result of a multi-year process through which the State Party's original nomination was not accepted due to a lack of a consolidated management regime for the collection of 7 protected areas. As a result of these negotiations, a final nomination was submitted, meeting technical requirements of IUCN, and inscribed by the WH Committee.
Sichuan Panda Reserves China	x	n/a	2006	The original boundaries proposed by the State Party included towns, agricultural areas and public infrastructure works. Revisions of the original nomination took place over more than 10 years. IUCN requested the revision of the boundaries so that only core areas be included. The final boundaries reflect IUCN's request.

1. Relationship between World Heritage and the IUCN Definition of a Protected Area

IUCN's definition of a protected area – "*An 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.*"

In the earlier years of the Convention, significant areas mainly dedicated to resource extraction and or urban development managed to be included within a larger inscription to the WH list. In Galapagos, a simple exchange with the State Party would have sufficed to exclude incompatible agricultural and urban lands from the original nomination. Three years after the Galapagos inscription, in its evaluation of the Great Barrier Reef nomination, the IUCN highlights this issue, and timidly suggests that some incompatible zones should be excluded from the propose site – though does not follow through, when, in the same report, it recommends inscription.

These situations likely arose out of the coarse application of the Convention in its early days, where little experience had yet been gained in the negotiating process that would later take place between IUCN, the WH Committee and the State Party in the development a nomination. As a result, several WH sites today contain areas of incompatible uses large enough to be considered as clearly defined zones within a WH site, and not just minor "pre-existing" intrusions to an otherwise relatively undisturbed protected area. One could suppose that in a retrospective exercise, States Parties could excise some of these areas from their older nominations – this is in fact happening in some cases.

However, over the years, States Parties have been encouraged to draw WH site boundaries along existing protected area boundaries, or to include these completely within existing protected areas. As illustrated in the case of Lake Baikal, and more clearly with the Sichuan Panda Reserves, there is a tendency to ensure that WH boundaries are clearly articulated with other protected area boundaries. Where large non-protected area gaps separate protected areas that would logically form one WH site, then a serial nomination is recommended – such nominations are increasingly frequent (e.g. Discovery Coast Atlantic Forest Reserves and Cape Floral Region).

The case studies (see table 13) provide a clear, graduated demonstration of how this tightening up has taken place during the nomination process, and illustrate how, over a 25 year process, new WH sites

are conforming more strictly to IUCN's definition of a protected area in excluding lands not benefiting from a protection regime, though egregious exceptions continue to occur (e.g. Peninsula Valdés).

2. Relationship between World Heritage and the IUCN protected area categories

There are 186 WH sites inscribed for at least one of the four natural heritage criteria (some are "mixed" sites, and also include cultural heritage criteria).

Of these, 47 are inscribed exclusively under criteria that do not focus on biodiversity / species issues (vii and viii). For the purpose of this discussion, these are referred to as "non-biodiversity" natural heritage sites. The remaining 139 are inscribed under criteria ix and/or x, either exclusively, or in combination with the non-biodiversity criteria vii and viii, and are considered as "biodiversity" natural heritage sites.

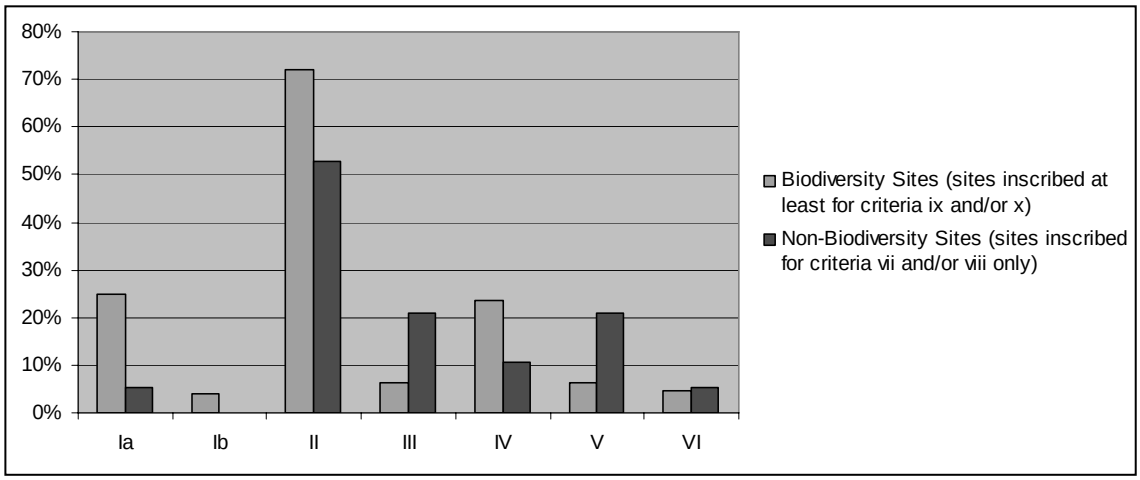


Figure 8: **Frequency of IUCN protected area categories in biodiversity and non-biodiversity natural WH sites**

Figure 8 illustrates the frequency of occurrence of a particular IUCN protected area category[34] within biodiversity and non-biodiversity natural WH sites[35].

Over 70 per cent of biodiversity sites contain a category II (national park) protected area. Some of these same sites may also contain protected areas of other categories (for instance, Te Wahipounamu in New Zealand is comprised of several different protected areas representing 5 different protected area categories).

The chart shows that very few biodiversity WH sites contain category V and VI protected areas (these categories are represented in 8 and 6 of biodiversity WH sites respectively, out of 128 sites for which the WCMC database attributes a protected area category). Of these, only three (2 per cent of all biodiversity sites) are comprised exclusively of a category V or VI protected area – being Australia's Great Barrier Reef, Mauretania's Banc d'Arguin National Park (e.g. usually considered category II), and Tanzania's Ngorongoro Conservation Area. These are typically large sites (348,700 sq km, 12,000 sq km and 8,288 sq km respectively). The Great Barrier Reef includes large restricted uses zones that in themselves would likely be considered category I-IV protected areas. To this end, it is not clear whether the category V-VI accorded to these protected areas is an accurate reflection of the permitted activities within their entire areas

Conclusions

The WH Committee, in deciding on the inscription of nominated sites to the WH list, is not currently constrained by IUCN definition of a protected area, nor by the IUCN system of protected area categories. However, given the increasingly refined Operational Guidelines for the Implementation of the WH Convention, and also that it is the IUCN's Protected Area Programme which leads the IUCN's role as advisory body to the WH Convention, there is a visible narrowing of the previous gap that used to separate the application of the WH Convention in relation to IUCN protected area approach.

Some ambiguities remain, particularly in relation to the category V and VI protected areas. It is clear that only

[34] PA Category information obtained from the WCMC database.
[35] Because a WH site may be composed of more than one PA, to which different categories are assigned, the numbers do not add up to 100 per cent. Also, only 128 of the 139 biodiversity sites, and 38 out of the 47 non-biodiversity sites are attributed a PA category in the WCMC database.

in rare circumstances will a biodiversity WH nomination be inscribed if it is comprised exclusively of a category V and/or VI protected area. It may be argued that for those three WH sites that exhibit this characteristic, a refinement of the IUCN protected area categorization of their component protected areas would result in the inclusion of category I-IV components.

WH designation is not in itself a protected area category, as had been previously understood prior to the 1992 World Parks Congress in Caracas. The variation in the types of protected area categories that comfortably fit within a WH site attests to the versatility of the Convention in accommodating different but limited intensities of uses within a WH site. This may be particularly true for marine WH sites, where there tends to be a greater acceptance of sustainable resource extraction (Great Barrier Reef, Galapagos Marine Reserve, Banc d'Arguin National Park).

In the end, under the new *2005 Operational Guidelines for the Implementation of the World Heritage Convention* (the OG), one would now be hard pressed to inscribe a site on the WH list under criteria (ix) or (x) that would not meet the IUCN definition of a protected area category I-IV. Any inclusion of category V-VI would likely be as a component of a larger site dominated by category I-IV protected areas.

This paper represents only the views of the author and not necessarily those of UNESCO's World Heritage Centre.

9. Governance

The categories relate to management objectives and say nothing about the way in which such sites are either owned or governed. But in the years since the present categories were agreed, there has been a minor revolution in attitudes to what constitutes a protected area in terms of governance, with much greater recognition than in the past about the importance of private protected areas and those managed by indigenous peoples and local communities. The following papers outline some of the thinking on this issue, which continues to evolve. The first looks at the general issue of governance and protected areas and introduces a matrix that compares governance type with management category and was prepared with assistance from the IUCN Commission on Environmental, Economic and Social Policy. Questions relating to both community concerned areas and private protected areas are examined in separate papers. Finally the specialised but important question of the links between sacred sites – places important to one or more faith groups – and protected areas are examined by the IUCN-WCPA task force on spiritual values.

9.1. The "IUCN protected area matrix": A tool towards effective protected area systems

Grazia Borrini-Feyerabend

Summary of key recommendations

This paper reviews the understanding of the concept of "governance" of protected areas emerging from the Vth WPC in Durban, the 7th COP of CBD and the IIId WCC, and governance's fundamental descriptors: "type" and "quality". It then illustrates the "IUCN protected area matrix" as a conservation tool with application at international, national and local level. The paper then proposes:

1. That the "IUCN protected area matrix" and its implicit structure of "IUCN governance types" are described in the new Guidelines and endorsed by WCPA/ CEESP in preparation for publication of the new categories guidelines by IUCN at the World Conservation Congress in 2008.

2. That a clear description of the concept of "governance quality" is also included in the new Guidelines, adopted by the WCPA/ CEESP and published by IUCN at the 2008 World Conservation Congress.

3. That the "IUCN protected area matrix" and underlying concepts are confirmed as key instruments to describe protected areas in the WDPA and that WCPA/CEESP and WCMC collaborate to define an optimal set of parameters to define governance, to incorporate those parameters in the next UN List of Protected Areas and to analyse the relevant information and derive relevant recommendations (including for World Heritage sites, in collaboration with UNESCO).

4. That the "IUCN protected area matrix" and underlying concepts (management categories, governance types and quality) are offered to the CBD as key instruments to support the implementation of its Programme of Work on Protected Areas.

5. That, in conjunction with the above, IUCN actively engages the CBD Secretariat to properly introduce to CBD Parties the concept and practice of Community Conserved Areas (CCAs)— the governance type less familiar to many conservation professionals— and avoid the pernicious consequences potentially related to CCA formal recognition.

6. That the WCPA Task Force on protected area categories and TILCEPA (joint Strategic Direction of WCPA and Theme of CEESP) develop a dedicated Specialist Group to draw lessons from the use of the IUCN protected area matrix and underlying concepts, and be able to consequently advise national and international bodies.

Background

The IUCN protected area definition and associated management categories are "neutral" about type of ownership or management authority for protected areas. In other words, the land and natural resources in any of the six management categories can be owned and/or directly managed by governmental agencies, NGOs, communities and private parties—alone or in combination.[36] In particular, customary community rights and private ownership rights can coexist with the status of a protected area, although official recognition may impose restrictions and obligations on those rights. The implications of this fact for protected areas and their governance were first articulated during preparation for the Vth World Parks Congress of 2003 through a definition of "governance types", which was soon combined with management categories in a matrix system (Borrini-Feyerabend et al 2002, Graham et al 2002). Governance "quality" was also identified as deserving attention for protected areas. The Durban Accord and Action Plan embraced those concepts, which were later enshrined in the Programme of Work for Protected Areas approved by the seventh Conference of the Parties of the CBD (CBD/COP 7) in February 2004.

[36] The 1992 World Parks Congress in Caracas (Venezuela) fully recognised that various types of landowners (communal, individual or corporate) can play a crucial role in conservation: and this was in turn reflected in the guidelines on the IUCN protected area categories

The Durban Action Plan affirms "improved governance"[37] among its key targets, and the CBD Programme of Work on Protected Areas includes a specific element on "Governance, Equity, Participation and Benefit Sharing", which calls on the Parties to the Convention to achieve measurable targets by 2012 or earlier. As a matter of fact, governance issues are embedded in *all* the elements of the CBD work programme. The programme urges Parties to adopt better governance practices and to recognise and promote various protected area governance types in national and regional systems. It lists specific targets such as engaging stakeholders in participatory management processes, respecting the rights of indigenous and local communities, developing mechanisms for equitable sharing of the costs and benefits of conservation and adopting specific *standards, criteria, and best practices* for protected area governance. These targets open new horizons and assign new tasks for professionals and activists engaged in conservation policy and practice.

"Governance of protected areas" is a relatively new concept (Abrams 2005, Borrini 2003, IUCN and Parks Canada 2005, Jaireth and Smyth 2004) in the conservation field. Governance is about power, relationships, rights, responsibility and accountability (UNDP 1999, 2002). Some define it as "the interactions among structures, processes and traditions that determine how power is exercised, how decisions are taken on issues of public concern, and how citizens or other stakeholders have their say". Graham et al 2003). Thus a specific governance setting depends on a combination of explicit and implicit policies, practices and institutions that affect public life. In a protected area context, governance covers a broad range of issues – from policy to practice, from behaviour to meaning, from investments to impacts. It is crucially related to the achievement of protected area objectives (management effectiveness), determines the sharing of relevant costs and benefits (management equity), is key to preventing and solving social conflicts, and affects the generation and sustenance of public support.

The complexity of the governance concept has lead professionals to devise ways to "break it down" into simpler constituents. Two main dimensions of governance thus emerged: "type" and "quality", which will be briefly reviewed below.

Governance "type"

A basic distinction among governance types can be made on the basis of "who holds *de facto* management authority and responsibility and can be held accountable according to legal, customary or otherwise legitimate rights" (Borrini-Feyerabend 2004). Accordingly, four main protected area governance "types" were identified and discussed[38] at the Durban Congress:

A. Government managed protected areas
B. Co-managed Protected Areas
C. Private protected areas
D. Community Conserved Areas

These are briefly described in box 7.

Box 7. Governance types for protected areas

Type A: Government Managed Protected Areas (state governance)

A government body (such as a Ministry or Park Agency reporting directly to the government) holds here the authority, responsibility and accountability for managing the protected area, determines its conservation objectives (such as the ones that distinguish the IUCN categories), develops and enforces its management plan and often also owns the protected area's land, water and related resources. Reflecting the devolution trend in many countries, sub-national and municipal government bodies can be in charge in place of federal or national ones. In some cases, the government retains full land ownership and/or control and oversight of protected areas – in other words decides the *objectives* of managing the area—but delegates the daily management tasks to a para-statal organization, NGO, private operator or community. Under state governance there may or may not be a legal obligation to inform or consult stakeholders prior to setting up protected areas and making or enforcing management decisions. Accountability measures also vary according to the country at stake.

Type B: Co-Managed Protected Areas (shared governance)

Complex institutional mechanisms and processes are here employed to share management authority and responsibility among a plurality of (formally and informally) entitled governmental and non-governmental actors. Co-management comes in many forms. In weak forms, sometimes called "collaborative" management, decision-making authority and responsibility rest with one agency but the agency is required – by law or policy – to inform or consult other stakeholders. In stronger forms of

[37] See also Recommendations 5.16 and 5.17 produced at the 5th World Parks Congress, 2003

[38] See Recommendations no. 5.17; 5.25; 5.26 and 5.27 of the 5th World Parks Congress, 2003

"collaborative" management, multi-stakeholder bodies are in charge of developing technical proposals for protected area regulation and management, to be ultimately submitted to a decision-making authority for approval. In "joint" management, various actors sit on a management body with decision-making authority and responsibility. Co-management is a governance type that well suits democratic societies and complex situations. (Sandwith et al 2001) Transboundary protected areas are an example of such complex situations, as they involve at least two or more governments and possibly other local actors.[39] The strength of co-management often depends on whether or not decisions require consensus among the participants.

Type C: Private Protected Areas (private governance)

Private governance comprises protected areas under individual, cooperative, NGO or corporate ownership. The setting of the area for conservation may be not-for-profit or for-profit. Typical examples are lands and resources acquired by NGOs explicitly for conservation purposes. Many individual landowners also pursue conservation objectives out of respect for the land and desire to maintain its beauty and ecological value. Utilitarian purposes, such as gaining revenue from ecotourism, hunting or the reduction of levies and taxes, are additional incentives. In all these cases, the authority for managing the protected land and resources rests with the landowners, who determine the conservation objective, develop and enforce management plans and remain in charge of decisions, subject only to applicable legislation. Their accountability to society is usually quite limited. Some forms of accountability may be negotiated with the government in exchange for specific incentives (as in the case of Easements or Land Trusts).

Type D: Community Conserved Areas (community governance)

"Natural and modified ecosystems including significant biodiversity, ecological services and cultural values voluntarily conserved by indigenous, mobile and local communities through customary laws or other effective means".[40] Here authority and responsibility rest with communities through a variety of forms of ethnic governance or locally agreed organizations and rules. These forms and rules are tailored to the specific context of application and can be extremely diverse and sophisticated. For instance, land and/or some resources may be collectively owned and managed, while other resources may be individually managed or managed on a clan-basis. Different communities may be in charge of the same territory at different times, or of different resources within the same territory. Rules generally intertwine with cultural or religious values and practices. Most often, the customary rules and organizations in charge of managing natural resources possess no legal recognition or sanctioning by the government. In some cases, however, the communities or indigenous peoples are fully recognised as the legitimate local authority, at times even with a property title. In such cases, the relevant communities may decide whether they wish the protected area to be recognised as a CCA or PPA. The community's accountability to the larger society is also usually limited, but it can be enhanced and made specific through negotiations, which at times result in co-management arrangements with other stakeholders (thus changing the governance type from D to B).

Governance can only be understood within a particular historical and social context, often as indicator of institutional continuity and resilience (strength or change). In the last centuries, modernization processes occurring throughout the world have devalued the roles of indigenous peoples and local communities (settled and mobile) in natural resource management. Their "re-discovery" at the Durban Parks Congress[41] – while acknowledging the many constraints and pitfalls that apply to community-based conservation – is relevant to both conservation effectiveness and equity as it raises the questions: "Is the governance type in place for a given protected area *effective* in terms of conservation results? Is it *fair* in the light of historical conditions, customary and legal rights and impact on the concerned communities?" Many conflicts between protected areas and communities could actually be avoided and replaced by constructive cooperation if communities were recognised as rightful managers or co-managers of the natural resources on which they

[39] In some rare cases, transboundary protected areas may be under the authority of only one body. For instance, this is so when a community or indigenous people established/ manages a Community Conserved Area straddling across national boundaries, as is possible for the migratory ancestral domain of mobile peoples

[40] Please notice that the definition of Community Conserved Areas (CCA) is stronger than the one of Protected Area in general. Identifying an area as CCA implies that the community management has been and/or is *effective*, i.e. successful, in conserving biodiversity. A Protected Area, on the other hand, implies only that the government has "dedicated" it to the conservation of biodiversity (etc.) and that it has agreed to manage it *towards* that aim (Borrini-Feyerabend et al 2004)

[41] See Recommendation 5.26 on Community Conserved Areas

depend for their livelihoods and cultural identity[42]. The meaningful engagement of indigenous peoples and local (sedentary and mobile) communities in the governance of the land and resources to be conserved could be vital to both conservation effectiveness and equity[43].

The "IUCN protected area matrix"

Table 14 illustrates governance types as a complementary dimension to the IUCN category system. As mentioned, this is possible because governance types are *category-neutral* and protected areas exist that fill each possible combination of management category and governance type. For instance, even for the most strictly protected area categories, such as category Ia, all four governance types occur[44]. This matrix has been discussed and adopted in various venues since the Durban Congress of 2003, and already used by national governments to develop and expand their protected area system[45]. It is here proposed that it is officially named "IUCN protected area matrix" (and "IUCN matrix" for short), described and illustrated in the revised version of the IUCN Protected Areas Guidelines, and endorsed by WCPA/CEESP in preparation for the formal publication by the IUCN at the IVth World Conservation Congress in 2008.

Conservation professionals are much more familiar with categories of protected areas than with "governance types" and may wonder why adding a layer of complication to an already intricate reality. It can be argued that a clearer attribution of authority and responsibility is bound to promote more accountable, and thus effective and equitable, decision making processes and rules. In other words, there is merit in assigning a governance type to a protected area because "clearer governance is bound to promote better governance". If the reasons to specify governance types may thus be rather evident, the *distinction between different types* may not be. Professionals may pose themselves very legitimate questions. Is there a neat distinction between co-managed and private protected areas for private lands under conservation easements? Is there a neat distinction between a local protected area managed by technical personnel appointed by elected leaders (a local "government-managed" protected area) and a Community Conserved Area managed by a local customary institution? Is there a neat distinction between a protected area managed by an NGO who is the owner of the land or by an NGO that has been appointed by the government? Is there a neat distinction between a protected area managed by a National Park Agency used to widely consult and involve other stakeholders and a jointly managed protected area where elected officials hardly understand or utilise the voting prerogatives assigned to them by the law? The *broad answer* to all these questions is no. But the *fine answers* depend on the specific contexts. And the implications of such answers are important for conservation.

By definition, "governance types" can be differentiated by looking at who holds *de facto* decisions-making authority and responsibility for the area and resources in question or, more simply, *who decides* how the area and resources are to be managed towards *what specific purpose/ management category*.[46] Besides that, we can investigate who takes the decisions that matter the most for biodiversity and natural resources. Is the private owner who signed the conservation easement entirely free to decide about managing the land to raise wild herbivores for controlled hunting or to promote the regeneration of natural forests? If yes, the protected area would be type C. Is the appointed conservation professional in charge of a municipal protected area in tune with what the area represents for the local people? In other words, are gates, guards and fees needed to protect the concerned resources? If the answer to this question is yes, we most likely have a type A. If the answer is no, or "only to protected the land from outsiders", we most likely have a type C. Is the NGO that manages the protected area free to carve up room for a five star hotel and allow access only to the hotel guests? If yes, we have a type C. If not, we have a type A. In case of controversy with the local communities or indigenous peoples, is the National Park Agency entirely free to go ahead with its own views? If yes, we have a type A. If not, and some form of negotiations are set up, we have a type B.

[42] See www.iucn.org/themes/ceesp/Wkg_grp/TILCEPA/community.htm IUCN/CEESP, *Policy Matters* Special issue on Community Empowerment for Conservation, 2003; IUCN/CEESP, *Policy Matters* Special issue on History, Culture and Conservation, 2005 and Brechin et al 2003

[43] See Recommendation 5.25 on Co-managed Protected Areas and, before that, the WCC Resolutions 1.42 (Montreal, 1996) and 2.15 (Amman, 2000)

[44] For example, some of the most valuable wilderness areas in the world correspond to territories under the control of un-contacted peoples, in the Amazon and some other forests in the Tropics. These communities have conserved their environments as part of an unbending resistance to outside contacts of any kind

[45] Notably in the "vision Durban" process in Madagascar, on-going since 2003

[46] Granted that all decisions taken by all social actors are embedded in some legal framework… we can understand "governance" as a concept that can even go beyond such framework, as it recognises customary and even experimental models of decision-making… This presents both an opportunity and a risk for the conservation of biodiversity—the opportunities being related to the power of innovation and the engagement and meaning related to cultural and customary processes and values, and the risks being related to possible manipulations by vested interests of any given form of recognition …

To understand governance types, it is useful to recall the co-management continuum that introduced shared governance to many conservation professionals (Borrini-Feyerabend 1996). Figure 9 illustrates such a continuum of possible actions as seen from the perspective of a governmental agency, and no sharp distinction is apparent between governance types. Type B is intermediate between A and C or D, as applicable. Type B is particularly important for protected areas where management decisions need to strike a balance between a variety of concerned actors, and/or where societies exist at the interface between local/traditional and outside/"modern" powers and rules.

Some professionals have pointed at the need to identify parameters and phenomena that highlight the difference between CCAs and CMPAs and help to unequivocally identify Community Conserved Areas. Annex 1 offers a simple tool to explore such a difference.

Table 14: **"The IUCN protected area matrix": a classification system for protected areas comprising both management category and governance type**

Governance types	**A. Government managed protected areas**			**B. Co-managed protected areas**			**C. Private Protected Areas**			**D. Community Conserved Areas**	
protected area categories	**Federal or national ministry or agency in charge**	**Sub-national ministry or agency in change**	**Government-delegated management (e.g. to an NGO)**	**Trans-boundary management**	**Collaborative management (various forms of pluralist influence)**	**Joint management (pluralist management**	**Declared and run by individual land-owner**	**…by non-profit organizations (e.g. NGOs, universities, co-operatives)**	**…by for profit organizations (e.g. individual or corporate**	**Declared and run by Indigenous Peoples**	**Declared and run by local communities (sedentary and mobile)**
I a– Strict Nature Reserve											
Ib- Wilderness Area											
II – National Park											
III – Natural Monument											
IV – Habitat/ Species Management											
V – Protected Landscape/ Seascape											
VI – Managed Resource Protected Area											

Figure 9: **governmental agencies and communities – a continuum of governance options**

Type A: state governance— authority & responsibility by government through federal, national or sub-national agency	**Type B: shared governance—** authority & responsibility shared between governmental agencies and other entitled actors	**Type C & D: private & community governance—** authority & responsibility by landowners or communities with customary rights

enforce rules and **repress violations**	**inform** and/or **consult** about management decisions	**seek consensus**, also through **benefit sharing**	**negotiate** (involve in decision making) & develop specific **Agreements**	**formally share authority & responsibility** (e.g. via seats in a CM body)	**recognise** full private or customary rights **& assist** in management

Governance "quality"

Richer and potentially more controversial that "type" is the concept of governance "quality", which has recently enjoyed rapidly increasing international interest.[47] The concept attempts to provide answers to questions such as "What constitutes "good" governance? How can a governance setting be "improved" to achieve conservation?" Following UNDP (1999 and 2002), "good governance" can be taken as a sort of meeting point between "performance" and "equity"— an avenue through which fundamental principles and values can emerge in society. These principles and values can hardly be imposed upon specific peoples or countries, but need to be respected when freely endorsed as foundations for social action.

In this sense it is here proposed that "good governance of a protected area" is understood as "*a governance system for the protected area that responds to the principles and values freely chosen by the concerned people or country and enshrined in their constitution, natural resource law, protected area legislation and policies and/ or cultural practices and customary laws*". Moving from the national to the international sphere, specific international agreements set governance principles and values shared by several peoples and countries, such as the Biodiversity Convention (CBD), the Aarhus Convention, the UN Convention to Combat Desertification, the Universal Declaration of Human Rights, etc.

Inspired by the principles and values contained in such international covenants,[48] the Durban Congress developed a set of broad governance principles for protected areas, including:

- ✓ "*legitimacy and voice*" – ensuring the capacity of men and women to influence decisions, on the basis of freedom of association and speech;
- ✓ "*subsidiarity*" – attributing management authority and responsibility to the institutions closest to the resources at stake;
- ✓ "*fairness*" – sharing equitably the costs and benefits of conservation and providing a recourse to impartial judgement in case of conflict;
- ✓ "*do no harm!*" – making sure that the costs of conservation are not "dumped" on some weak social actors without any form of compensation;
- ✓ "*direction*" – establishing long-term conservation objectives grounded in an appreciation of local ecological, historical, social and cultural complexities;
- ✓ "*performance*" – meeting the needs and concerns of all stakeholders while making a wise use of resources; and
- ✓ "*accountability*" – having clearly demarcated lines of responsibility and ensuring a transparent flow of information about processes and institutions.

These principles were taken into consideration during the development of the 2004 CBD Programme of Work on Protected Areas and broadly incorporated there. Today, the reflection has further progressed. For some it is becoming clear that governance of natural resources and of protected areas in particular, needs first and foremost to respond to the basic criterion of respect for human rights. In this sense, a *human rights-based approach to conservation* is being investigated as the path to reconcile conservation and equity, as only by embracing clear standards of morality and justice can conservation become convincing about its own moral imperatives. A human rights based approach would provide non-ambiguous guidance to dealing with the complex interplay between conservation goals and the political, economic, social and cultural rights of present and future generations. Research is currently underway to clarify, unpack and develop practical guidelines to it.[49]

Using the IUCN protected area matrix

The IUCN protected area matrix is a combination of the familiar IUCN categories and the less familiar governance types. Using the matrix and underlying concepts would mean expanding the vocabulary of the "common language" that IUCN has promoted so far in terms of protected areas (Bishop et al 2004), and possibly starting to identify some grammar rule. This does not impose anything on anyone, but it is far from inconsequential.

[47] The Plan of Implementation of the World Summit on Sustainable Development – WSSD (Johannesburg, 2003) and the Millennium Development Goals recognize the close relationship between good governance and sustainable development. The Report of the International Conference on Financing for Sustainable Development (Monterrey, 2002) recognizes "good governance" as being "necessary for ODA effectiveness" and "essential for sustained economic growth and poverty eradication…" The meeting on Biodiversity: Science and Governance (Paris, January 2005) stressed that governance analyses and agreed rules are crucial for biodiversity conservation to be compatible with poverty eradication and the other Millennium Development Goals.

[48] For instance: the Universal Declaration of Human Rights, the CBD ecosystem approach and broad objective of fair and equitable sharing of benefits arising out of the utilisation of genetic resources, the right of access to environmental information and justice of the Aarhus Convention, the requirement of participation in governance of the Millennium Declaration, the subsidiarity principle enshrined in EU legislation

[49] A TGER/ TILCEPA research initiative will deliver a report on this to the IUCN in 2007, and a related recommendation or resolution will be tabled for adoption at the IVth WCC in 2008.

At the international level, the IUCN governance matrix and underlying concepts can be used in the WDPA and in the UN List to structure entries and promote meaningful comparative analyses, including for World Heritage Sites. Importantly, they *should* be used to report and monitor the status of CBD Programme of Work on Protected Areas, as the related targets specifically refer to governance concepts and issues.

At the national level, the IUCN protected area matrix and underlying concepts can be used to structure the understanding of the national system of protected areas, and to identify possible gaps and ways (including novel governance types) to fill those gaps. This has already happened in Madagascar (Ministère de l'Environnement, des Eaux et Forets de Madagascar 2005), where the "IUCN protected area matrix" has assisted the Malagasy government and partners in the currently tripling of protected area extension in the country and influenced the development of a new implementation policy for the protected area legislation. Similarly, the new protected area law of France (Ministère de l'écologie et du développement durable de la République Française 2006) has drawn from recently developed governance concepts and debates.

At the local level, the IUCN governance matrix and underlying concepts can be used to better understand a local protected area in relation to other protected areas in the country. This can prompt a participatory evaluation of the appropriateness of both management category and governance type (Abrams et al 2003), as well as links of communication, collaboration and mutual learning among various actors and institutions in charge of governance.

Endorsing the "IUCN matrix": implications for WCPA/CEESP and IUCN

What are the foreseeable implications of endorsing the "IUCN protected area matrix"? Improved clarity in communication is an obvious consequence of refining the language that describes protected areas. Comparisons of the conservation results of protected areas under the same management category and governance type, or under same category and different governance types, will be stimulated, offering lessons for management effectiveness. But much more momentous political and economic implications can also be envisaged.

A broad understanding and acceptance of Private Protected Areas and Community Conserved Areas as part of national systems of protected areas will likely stimulate the engagement in conservation of more private actors, indigenous peoples and local communities, and thus a sizeable expansion of areas managed towards conservation objectives (Pathak et al 2004). With biodiversity loss looming on the horizon, conservation opportunities and protected area labels will acquire more importance, offering interesting land use options for both social prestige and economic returns. In addition, more indigenous peoples and local communities will discover that CCAs are good avenues to secure their customary rights to land and natural resources,[50] and even to secure carbon sequestration payments if current attempts at developing related policies are successful.[51] If the conditions for embracing variety, promoting permanence and securing rights will be in place for PPAs and CCAs, conservation is likely to be a major winner.[52]

In this light, a partnership among IUCN, UNEP WCMC and CBD centred on the meaningful and rigorous application of the IUCN protected area matrix and underlying concepts will be most useful to provide the necessary benchmark to develop international guidance, standards and tools. The latter should be formally offered to the CBD to support the implementation of its Programme of Work on Protected Areas. In fact, the IUCN and partners have a rather crucial role to play, as lessons learned about governance issues need to be placed at the disposal of the CBD Secretariat and the CBD Parties, including at the next Conference of the Parties. For instance, they should provide an introduction to CCAs, the type of governance least familiar to many conservation professionals (see Kothari 2004), and advice about avoiding the pernicious consequences potentially related to CCA formal recognition (see box 8).

[50] e.g., this is happening in the Philippines after the passing of the 1997 Ancestral Domain Law, popularly called IPRA, or Indigenous Peoples' Rights Act. This Law recognises a number of collective rights of the Philippines indigenous peoples over their ancestral lands, including the right to continue to live there in accordance with own traditions, religions and customs. The law establishes a National Commission empowered to award land titles if when those are successfully claimed by the over 12 million native people in the Philippines. The law awards 'ancestral domain' lands on the basis of communal rather than individual ownership, impeding unilateral sale of land by tribal leaders. It requires a process of informed consultation and written consent by the indigenous group to allow mining on tribal lands and assigns the indigenous groups a responsibility to preserve forests, watersheds and biodiversity areas in their domains from inappropriate development. This law is one of the most important barriers to the indiscriminate opening up of areas to transnational mining companies, which is rampant on the basis of current mining legislation.

[51] Interest is mounting about allowing carbon sequestration payments to flow towards the stewards of existing natural forests rather than to new forest plantations only.

[52] Conservation can be expected to be a big loser everywhere else, in fact, due to the indiscriminate exploitation of natural resources and the environmental degradation processes well underway

The World Commission on Protected Areas (WCPA) is best placed to develop a Specialist Group dedicated to drawing lessons from the use of the IUCN protected area matrix and underlying concepts, and to consequently advise national and international bodies. The WCPA's Task Force on Protected Areas Categories and Strategic Direction on Governance, Equity and Livelihood (TILCEPA- a joint Theme with the IUCN Commission on Environmental, Economic and Social Policy) are rightly placed to identify the key professionals around which that Specialist Group could grow. The Specialist Group could offer advice about when particular governance types are "strong enough" (e.g. because of proven capacities and promise of permanence) to "count" as protected areas. It could propose governance standards and advise on appropriate management objectives in supra-national systems of protected areas. It could provide guidance about national policies and practices in support of Community Conserved Areas and Private Protected Areas. And, importantly, it could support national agencies to use the IUCN matrix to review their systems of protected areas, to identify new options to close biodiversity gaps and to assess their achievements with regards to CBD obligations. In all, an effective Specialist Group would constitute a powerful mechanism for IUCN to fulfil the obligations included in its mission

Box 8: Dealing with cultural complexities – pitfalls to avoid!

A major stumbling block towards recognising and harnessing the conservation potential of Community Conserved Areas (CCAs) is the inability of states to accommodate and respect the variety and complexity of forms of ethnic governance or locally agreed organizations and rules. These forms and rules emerge from local cultural milieux that often have little in common with dominant society (although in many cases they are a mix of local customs/traditions and outside influences). Their interrelation with elements of religious, spiritual, or magic significance, their frequent lack of secure financial bases and their dependence on local institutions that derive legitimacy from customary and not necessarily formal "democratic" or "scientific" standings, contribute to the lack of trust that state institutions and many conservation organisations have in them.

How can states let go of their legal procedures and formally assign conservation authority and responsibility to the supposedly capricious, unpredictable, and bewilderingly diverse customary institutions that represent indigenous peoples and local communities? How can states move away from wanting to impose uniform institutional and legal regimes on diverse situations? These questions are not trivial and are relevant in both the North and the South, and not only with regard to the conservation of biodiversity. Throughout the last century, state governments designed a number of mechanisms by which they dealt with the interface between traditional and "modern" institutions supposedly representing the same people. Conservationists, however, have not yet fully scrutinised such mechanisms and their effectiveness. Too often, hastily imposed "democratic" forms of governance have provided fast inroads to the unsustainable and inequitable exploitation of natural resources. Too often, "modern" institutions have not performed as well as customary institutions in conserving biodiversity. As a matter of fact, some "democratic" and "modern" institutions have been responsible for *degrading* bio-cultural diversity This is more than a curiosity, an "inevitable side effect of modernity", or a minor problem. Given the extent and variety of Community Conserved Areas around the world, the issue is of enormous concern for conservation. The conservation potential of CCAs will be greatly diminished if not altogether lost if state governments will not be capable of embracing cultural complexities and respecting the idiosyncratic customary institutions locally in charge of biodiversity. When dealing with conservation jewels such as many CCAs still are, conservationists who understand these initiatives need to advise both governments and conservation organisations about effective and unobtrusive forms of respect and/or recognition and support.

9.2. Community Conserved Areas

Grazia Borrini-Feyerabend and Nigel Dudley

ommunity Conserved Areas (CCAs) have been defined[53] as: "*natural and modified ecosystems, including significant biodiversity, ecological functions and cultural values, voluntarily conserved by indigenous peoples and local and mobile communities through customary laws or other effective means*".

Community Conserved Areas have three essential characteristics:

- ✓ Some indigenous peoples and local and mobile communities are "concerned" about the relevant ecosystems – usually being related to them culturally (including because such areas are regarded as sacred) and/or because of livelihoods.

- ✓ Such indigenous and local communities are the major players (and hold power) in decision making and implementation of decisions on the management of the ecosystems at stake, implying that some form of community authority exists and is capable of enforcing regulations.

- ✓ The voluntary management decisions and efforts of such communities lead towards the conservation of habitats, species, ecological functions and associated cultural values, although the protection status may have been set up to meet a variety of objectives, not necessarily related to the conservation of biodiversity.

There is mounting evidence that such CCAs can provide effective biodiversity protection responding to any of the management objectives of the IUCN categories, and particularly so in places where formal protected areas are politically or socially impossible to implement or are likely to be poorly managed.[54]

In fact, CCAs are starting to be incorporated into broadscale conservation planning strategies, complementing government-managed protected areas, private protected areas and conservation easements or various other forms of co-management to create a biodiversity compatible landscape or seascape mosaic (Borrini-Feyerabend and Dudley 2005). But this is still more the exception than the rule. Most CCAs are not formally recognised, protected or valued as part of national protected areas networks. In some cases, there may be good reasons for this – including reluctance of the relevant communities to becoming better known or disturbed or because the site has particular sacred values that require privacy – the location of some sacred sites remains a secret of the relevant community for example.

In many other cases, however, Community Conserved Areas face formidable forces of change, which they might be better able to withstand with the help of an official recognition and appreciation. In particular, the alternative to state recognition as CCAs may be state exploitation, e.g. for timber or tourism, with great losses for cultural and biological diversity. In these cases recognition within national protected area networks can give communities additional safeguards over their land. This may be coupled with the acceptance by the state that community management policies may be different from "typical" state-governed protected areas.

Many conservation professionals view the possible formalisation of CCAs with mixed feelings. There is growing recognition of the positive role that CCAs can play in maintaining biodiversity, but there is concern that "weak" CCAs could be added to national protected area systems as a cheaper and more politically-expedient alternative to other conservation options. There are also worries that, as societies change, approaches to management may also change and some of the traditional values and attitudes that helped conserving biodiversity might be lost in the process. Formal CCAs that are unable to maintain their traditional conservation practices are worse than informal, unsecured CCAs, where the government or other stakeholders may be better equipped to intervene.

[53] The definition evolved through preparatory work towards and at the World Parks Congress of Duran (2003) and was extensively illustrated as part of the IUCN categories/ governance type matrix in Borrini-Feyerabend, et al., 2004. The only change made here with respect to the original definition is the substitution of "function" to "services" to stress that ecosystems provide more than economic benefits to people.

[54] The categories task force is developing a project to compare the effectiveness of different models of protected areas in terms of meeting biodiversity conservation objectives – including analysis with respect to both management objectives and governance types, hopefully starting in 2008.

We propose that IUCN respond to the potential and the challenge offered by Community Conserved Areas in three ways:

- ✓ Formally recognising that CCAs can be protected areas. This is in line with the IUCN definition of a protected area, with recommendations 5.17 and 5.26 from the World Parks Congress and with resolutions 3.012 and 3.049 approved at the 2004 World Conservation Congress.

- ✓ Set in place a process to identify the careful steps needed for CCAs to be formally incorporated within a national protected areas system – probably through a joint TILCEPA-categories task force working group

- ✓ Work with the UNEP World Conservation Monitoring Centre to identify mechanisms by which CCAs can be recognised within the World Database on Protected Areas and the *UN List of Protected Areas*.

Some initial thinking on the criteria for recognition has already been published (Borrini-Feyerabend et al 2004) and we reproduce this below as a starting point for discussion

Steps to determine whether a Community Conserved Area is a "protected area"

- ✓ Determine whether a CCA and its current governance system fit within the protected area definition and/or criteria under national legislation and policy, as well as under IUCN and CBD definitions for the purposes of international registries and classification.

- ✓ If so, determine whether it fits within the existing protected area categories of the country concerned. Could the CCA qualify as a national park, sanctuary, game reserve, or other existing protected area category? Importantly, would such a category allow for the community's own governance system to continue? Would it allow for management objectives that may be conceptually and/or practically different from conservation *per se*?

- ✓ When national legislation and policies are fully compatible with local practice, conservation agencies should grant, or formally recognise, that authority and decision-making powers for the management of the CCA should rest with local communities. Importantly, this will enable them to enforce their decisions (as in the case in which an ordinance for the control of fishing may provide the needed legal backing to a community-declared marine sanctuary).

- ✓ When there is incompatibility between community management and national protected area categories, legal and policy adjustments will be required to the current statutory provisions so that the relevant community can retain its governance system. Often, what the communities request is a guarantee of customary tenure, use and access rights, usually sanctioned through a demarcation of territories and resources. For that to happen, however, it may be necessary that the community institution in charge of the management of the CCA be recognised as a legal persona. This may result in changes in the ways a community organizes itself and manages the area. It is important that the community itself determines such matters.

- ✓ After the incompatibility is removed, the agency should embark on a process of negotiation, which may end in a contractual arrangement between the community concerned and the national or sub-national conservation authorities. This contractual arrangement may recognise the CCA and provide to it some form of legal protection or support. In other cases, it may transform the area into a *de facto* Co-managed Protected Area.

- ✓ Once agreement has been reached between the community and the protected area agency about recognising the CCA as a protected area, jointly agreed rules and regulations are needed for managing it. These may simply involve recording the community's existing rules, without interference from the state agencies, or incorporating new advice, methods and tools. The rules should specify what kind of land and resource zoning exist, what community and individual rights (including ownership) exist, what institutional structures manage the area, whether and how sustainable resource harvesting is allowed to take place (e.g. with limits on quantity, species and seasons). It may also be useful to clarify and record the subdivision of rights and responsibilities within the community itself and to specify provisions against the misuse of rights and power on the part of both the community and government authorities.

- ✓ Clarify how the CCA boundaries are to be effectively enforced and protected against external threats. What kind of community-based surveillance and enforcement mechanisms are recognised by the state? For instance, can community members apprehend violators? Who judges in the event of controversies? Who is responsible for the information campaigns needed for the general public to respect CCAs?

With many thanks to Ashish Kothari for his comments on an earlier version of this paper

9.3. Private protected areas

Brent Mitchell

This paper relates to other submissions on governance and protected area categories by focusing on one of four types of governance—private protected areas—arguably the only type that does not include ownership or direct control by a government of any kind.

Protected areas are owned and managed through private mechanisms in most of the world, and their number and extent are growing fast. Often the result of local initiative and conducted without the direct intervention of government, they are not yet fully integrated in national conservation planning or reporting in many countries. The international system of protected area management categories historically emphasized the role of governments. Reflecting this, private protected areas are not as well understood globally as their contributions warrant. The current review of the categories represents an opportunity to recognize the full spectrum of protected area governance.

When is a protected area a protected area?

The foundation of the categories system is the 1994 definition: *An 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.*

It is a rather open secret that there are a great many areas that are protected *de facto* or *de jure* (and often both) that meet the IUCN definition but have not been specifically recognized as Protected Areas and not listed in the World Database on Protected Areas. In the United States alone there are thousands of private protected areas that satisfy the definition, yet only 23 are currently listed as private reserves in the database.

One of the purposes of the 1994 category guidelines was to alert governments to the importance of protected areas and encourage development of systems of protected areas, and that they have had demonstrable impact since that time Bishop et al 2004). Though extra-governmental protected areas were never specifically excluded from consideration, in practice most governments focused on those areas in which they exercised direct management authority, through public ownership or other means.

A unique governance type

The 2003 World Parks Congress identified four main protected area governance types:

A. Government managed protected areas
B. Co-managed protected areas
C. Private protected areas
D. Community conserved areas

In this typology, private protected areas are unique in not having a direct government role. The first (government protected areas) include government by definition and in the second (co-managed) usually at least one of the co-management entities is governmental. As for D, if one takes the broad definition of government, "the system by which a state or community is governed", then community-conserved areas also are directly controlled by government, albeit expressed very differently from the kind of state bodies most people might normally associate with the term *government*. Though subject to government by regulation, private protected areas do not include direct governmental authority. It is this feature—independence from direct governmental intervention—that makes private protected areas attractive to many.

Embedded in the private protected area type description ("C" in the typology above) are four ownership models:

- ✓ Individual (areas in which ownership is held by a single person or family)
- ✓ Cooperative (perhaps the rarest form; examples include the Ahuenco Conservation Community in Chile)
- ✓ Nongovernmental Organization (private not-for-profit organizations operating to advance a specific mission and usually controlled by a board and specific regulations)
- ✓ Corporate (a for-profit company or group of people authorized to act as a single entity, usually controlled by an executive, an oversight board, and ultimately individual shareholders)

Each of these general ownership models (and myriad variations on them) has particular implications for management.

Private protected areas in the categories

Governance is a cross-cutting descriptor of protected areas; that is, although historically developed with government primarily in mind, the categories can be applied irrespective of ownership. Private protected areas can and do fall into all of the 1994 categories, and presumably will apply in any future amendments. It would be incorrect to assume that private protected areas are better represented under categories IV-VI; many fit the management objectives of I-III, perhaps especially those owned/managed by NGOs.

That is, they would fit if they were so assigned. Most of the data on categories to date has been submitted by national governments, and the level of recognition of private protected areas tends to be positively correlated with the level of governmental involvement in stimulating or enabling their creation. The system of Private Natural Heritage Reserves (*Reserva Particular do Patrimonio Natural–RPPN*), so important to biodiversity conservation in Brazil, was established by the Brazil Environmental Agency (*IBAMA*) in 1990, and so far 234 of the 429 *RPPN* have been listed in the WDPA. In contrast, only 11 of the 100 private reserves recognized by NGOs in Costa Rica appear to be listed. An individual example, also not on the list, is the Mornington Wildlife Sanctuary. At 312,000 ha it is the largest property of the Australian Wildlife Conservancy, protecting 189 bird and over 80 reptile and amphibian species (Figgis et al 2005). With little data on private protected areas in the database, it is impossible to make quantitative statements about representation across categories or undertake accurate national gap analysis. This lack of accurate data makes fulfilling the CBD's aim of a comprehensive, effectively managed, and ecologically representative national and regional system of protected areas an even more difficult task

Governments have an incentive to provide data to UNEP/WCMC for inclusion in the WDPA as a way to document their contributions to conservation, however this incentive might not carry over to private protected areas. Other limiting factors may include a lack of governmental capacity to collect data on private reserves, or private protected area managers/owners being reluctant to share information freely. Additional mechanisms for applying the international categories to private protected areas may be needed (see below).

Integrating management categories and governance types

In attempting to provide protected area managers with a common language, the international system of categories is of course in many ways functionally analogous to the Linnaean system of classification used in taxonomy.[55] A Greater Shearwater is a Grand Puffin, a Petrel-Hagdon, Pardela cabeza negra, zuguromizunagidori, Большой буревестник, or Bobo-grande-de-sobre-branco depending on national or local conditions, but it is internationally recognized as *Puffinus gravis* (and never *Fratercula spp.* nor *Pterodroma spp.*!) Similarly, a national park may be category II in one country and category V in another, but the management aims of a category II should always be understood, throughout the world. A state park is understood to be a national park in one country but a subnational (i.e., provincial-level park) in another, and may be II, V, or any other category. But category V is always V, throughout the system.

In considering governance in the international system, it may be helpful to adopt a binomial structure for protected areas. Though management objectives for the categories can be developed and assigned without regard for governance, comparisons of protected areas and their effectiveness would be greatly enhanced by listing governance type as well as management category in future databases. The categories are not taxonomic, but a binomial classification would easily sort for both management objectives (i.e. category I-VI) and governance type (i.e. A - D, as described above). Using these letters designations, for example, Yellowstone National Park might be described as category II:A; Mornington Wildlife Sanctuary might be II:C; Snowdonia National Park V:B.

Special reference to geographic scale may be necessary when considering governance, though it is equally important to consider in management categories. The geographic definition used to describe a protected area may affect the governance type that best describes it. While certainly there are large areas under single ownership/management authority, simply put the larger the geographic area the more likely it is to contain multiple owners/managers and, depending on the country, the more likely to include different governance types. This could lead to a large proportion of protected areas being assigned as co-management protected areas ("B"), even though this may not best represent the dominant power relationship affecting

[55] The ongoing development of the international system of protected area categories also parallels development of the Linnaean system of binomial nomenclature in that has changed with better understanding of the relationships it seeks to order. It is moving from general characteristics to more scientific criteria.

management objectives. On the other hand, a picture of otherwise coherent landscapes, where a matrix of ownership patterns has evolved over time, may be obscured by piecemeal application of the categories by government type. Should IUCN pursue options for integrating government types with management objectives, considerable planning and testing would be required to find and establish protocols for application to complex protected areas. The problem is similar to that of applying management categories to protected areas with multiple management zones, but adds a dimension. Though challenging, the higher the resolution in applying the categories the sharper a picture of the state of protected areas will appear.

Use and misuse of protected area statistics

A full counting of the extent of private lands[56] that satisfy the IUCN definition of a protected area would significantly expand the aggregate statistics for the area "protected" around the world. Broad statistics can be used inappropriately and, stripped of detail on the objectives and effectiveness of management designations, can give the impression that a very great deal of land and sea are already adequately conserved. Summary protected area totals can and have been used to argue against the designation of additional protected areas or commitment of resources for conservation work within them. To quote Andrew Land, there are those who would use "statistics as a drunken man uses lampposts – for support rather than for illumination." As IUCN reviews definitions of and guidelines for protected area management categories, it may also need to establish or review internal policies for the use of global protected area statistics.

But potential misuse of aggregate statistics should not restrict efforts to describe conservation work that is and has been done at local and national levels. The international system of protected areas management categories was intended to provide a shared understanding of local and national protected areas at a global level, to reflect rather than direct national and local policies. Though they might be negatively affected, advances in private land management and protection will continue, whether adequately described in an international system or not. The same may apply to other governance types, as well as the categories themselves, including category V and category VI. But no global picture of protected areas is complete without them.

[56] Private ownership rarely applies to the marine environment, though obviously protection of the terrestrial side of the land/sea interface is often a high conservation priority.

A key point of contention about the categories system stems from a concern that recognizing the spectrum of management objectives and governance types that exist today might dilute the definition of a protected area and possibly divert attention from biodiversity conservation. Part of the issue derives from basic interpretations of what the *"protected"* in *protected area* means. In all three core languages of IUCN, the name implies a level of completeness—and a past tense—that belies the constant management and vigilance that true protection requires. Meeting the definition is not an endpoint but only the beginning of management *to achieve specific conservation objectives*.[57] Though semantics cannot resolve the issues to be debated about labels of categories and governance, it might be helpful and more accurate to change the cardinal label from *protected areas* to *protection areas*.

"Effective means"

In the majority of cases, the creation of a private protected area—and management of the same for conservation objectives—is a voluntary act on the part of the landowners.[58] A growing recognition of the opportunities for achieving conservation objectives on private land—and especially the proliferation of mechanisms and incentives for doing so—has resulted in a dramatic increase in the number and extent of private protected areas in the last century, and in some countries these increases have been logarithmic in scale in the past few decades.

A list of these mechanisms and incentives for private land protection include:

- ✓ Systems of voluntary protected areas designations, in which landowners agree to certain management objectives or restrictions in return for assistance or other incentives. (The RPPN of Brazil are an excellent example.)
- ✓ Voluntary surrender of legal rights to land use on private property, sometimes to realize advantages conferred by the theoretical loss in value, or to secure protection in perpetuity. (Conservation easements and related covenants and servitudes)
- ✓ Charitable contributions, in which nongovernmental organizations raise funds privately or publicly for purchase of land for protection, or receive gifts of land directly from willing donors (large NGOs such as The Nature

[57] From the Convention on Biodiversity definition of a protected area as a *geographically defined area which is designated or regulated and managed to achieve specific conservation objectives*

[58] There are of course instances where private land is managed as a protected area through specific designation and concomitant use restrictions. In such cases the real power rests with the authority imposing such restrictions, and debatable whether such areas should be considered private protected areas.

Conservancy, Conservation International, and World Wildlife Fund are familiar, but there are many national and local examples)

- ✓ Corporate set-aside, donation, or management of an area for conservation, often for public relations purposes, as a concession or off-set for other activities, stipulation of 'green' certification or an investment in the future

To date the categories have not been intended as a basis for evaluating management effectiveness. However, the IUCN definition *[…managed through legal or other effective means*] suggests that such evaluation be engaged for areas not protected by legal means (or where legal means have not been effective!). For without some measure of effectiveness it would be impossible to determine if an area meets the definition. The case of private game reserves in southern Africa illustrates the point. These are operated on private land for income-generating tourism activities. The activities are dependent on biodiversity and natural resources, so conservation is a priority in management. Therefore, recognizing them as protected areas under the IUCN definition would be entirely dependent on their management effectiveness. Rather than attempt to conceptualize and codify all of the means that might be effective in all cases around the world, it would seem more efficient and accurate to evaluate the management effectiveness of such areas.

From a governmental perspective, private protected areas (as well as community conserved areas and co-managed areas) can represent an "effective means" to achieving conservation objectives. Private and community groups can sometimes be more efficient than government counterparts, and their contributions reduce the management burden on government authorities. Significantly, as protected area strategies grow in scale, other governance types become necessary, as large landscape conservation projects overlay extensive areas of private lands or locally-managed resources.

The category system holds the potential to assist governments in monitoring private conservation activities, evaluating both the management objectives of private protected areas and their effectiveness. There are, of course, local and national safeguards in place in some countries intended to ensure that private protected areas are managed according to designation, regulation or proclamation. The practical significance and implementation of these safeguards varies widely among countries. (There are also examples of self-regulation of private protected areas, such as the developing land trust accreditation program in the United States.) A standardized and verifiable management category system operating at an international level could provide governments with a comparative basis for monitoring private protected areas within their national conservation strategies.

The purpose of cross-referencing management category and governance type is to facilitate statistical analysis. Such analysis is meaningless without sufficient and reliable data, pointing up questions not only of criteria for applying management categories, but data integrity, completeness, and access. This suggests that the current system should be supplemented or replaced with new mechanisms for compiling data on protected areas worldwide. A model exists within IUCN—the Red List of Threatened Species compiled by the Species Survival Commission. In a similar fashion, WCPA could tap its membership to channel protected area site information to the WDPA based on protocols to be derived from the new guidelines (assuming the Categories Summit leads to new guidelines). Much of the data could still emanate from existing government sources, but be supplemented by expert sources on other governance types. WCPA members should be most familiar with the categories and could be guided in their application through decision-support documents to be developed (e.g. the "tool" drafted for the Summit). A review process within IUCN might be necessary in the event of disputes on assignment of either category or type. Collection and sharing of data could be facilitated through the use of a content management system (CMS) or private wiki.

The key point is to set up a mechanism with clearly defined categories and guidelines with sufficient specificity that they can be applied objectively, with minimal interpretation. In the proposed mechanism, WCPA members would not be deciding management categories or governance type, they would simply apply the international label to the conditions that have already been determined at national or local level.

Conclusion

Private protected areas are a large and growing subset of the world's protected areas, but are under-represented in the body of areas recognized by IUCN and reported in the WDPA. Integrating governance types with management categories in future will enhance an understanding of the state of protected areas worldwide, and a binomial system is suggested. WCPA can make use of expert members to improve data availability and integrity, provided that criteria and guidelines are specific enough to allow objective application of the management categories.

9.4. Sacred sites and protected areas

Bas Verschuuren, Josep Maria Mallarach and Gonzalo Oviedo

Proposal

Sacred sites (including sacred natural sites) that fit into national and international definitions of protected areas can where appropriate be recognized as legitimate components of protected area systems and can be attributed to any of the six IUCN protected area categories. At the same time, the cultural and spiritual values of protected areas should be better reflected in the whole range of categories, where at the moment they are absent or insufficiently recognized.

Background and rationale

IUCN's definition of protected areas recognizes the intrinsic cultural dimension of protected areas. The cultural and spiritual values that human communities and individuals assign to protected areas and natural places of special significance are expressions of such cultural dimension.

This has been reflected, at least partly, in the experience of the protected areas community around the world. Many protected areas contain sites of importance to one, and some times more than one faith or spiritual value systems, including both sacred natural sites and built monuments such as monasteries, temples, shrines, pilgrimage trails, etc. Even in systems of protected areas of the most secularised countries of Europe, which were established using only ecological criteria, it is estimated that between 20-35 per cent of them include significant cultural or spiritual values.

Chair of the WCPA, Nik Loupukhine *states that WCPA supports the call for faiths and conservationists to work together to help achieve the world's vision of halting biodiversity loss. As representatives of conservation organisations, we pledge to work with faiths in ensuring that when protected areas overlap with sites of spiritual importance, both these values will be taken into account in management. We hope and believe that both faith groups and conservation organisations can benefit from working in partnership to recognise and to protect the natural world, which provides such inspiration to so many. (Quoted from Dudley et al 2005).*

Managers have to ensure that these spiritual values are protected alongside natural heritage. However, sacred sites are currently not effectively reflected in protected area designations and management plans, and existing policy and legal frameworks do not adequately support sacred (natural) sites (Jeanrenaud 2001). There is a sound and widespread evidence that sacred natural sites have been providing, often over the centuries and continue to provide effective biodiversity conservation (Posey 1998, Berkes 1999, McNeely 2000, Jeanrenaud 2001, Harmon & Putney 2003, Dudley *et al* 2005). It has become evident that the integration of cultural and spiritual values of sacred natural sites can play a pivotal role in the sustainable and equitable conservation and ecosystem management.

Recommendation 5.13 from the Vth World Parks Congress called governments, NGOs, local communities and civil society to "ensure that protected area systems, protected area designation, objective setting, management planning, zoning and training of managers, especially at the local level, give balanced attention to the full spectrum of material, cultural and spiritual values; and requested IUCN to "review the 1994 Protected Area Category Guidelines with the aim of including cultural and spiritual values as additional potential management objectives in categories where they are currently excluded"[59]. Further, Recommendation 5.19 on "IUCN Protected Area Management Categories" requested that the revised, updated edition of the 1994 guidelines "Gives greater recognition of cultural and spiritual values, so that the full range of special qualities of each protected area are fully recognized".

At that time, it was suggested that category III might provide a natural "home" for sites with a particular focus on sacred values and that guidance on category III could be modified accordingly. Since 2003, research on five continents has shown that sacred natural sites exist in all categories of protected areas and each may have particular benefits depending on circumstances (Secretariat of the CBD 2004, Putney 2005, Dudley *et*

[59] WPC 2003 Durban, Recommendation 13 Cultural and Spiritual Values of Protected Areas. The participants in the Session entitled "Building Cultural Support for Protected Areas", held in the Building Broader Support Workshop Stream, recommended that all protected area systems recognise and incorporate spiritual values of protected areas and culture-based approaches to conservation. WPC Recommendations are available at: http://www.iucn.org/themes/wcpa/wpc2003/english/outputs/recommendations.htm

al 2005, Verschuuren 2007, Mallarach 2007). This conclusion is applicable in both developing and developed countries. As an example of the latter, The Delos Initiative case studies currently feature over 30 sacred natural sites located in protected areas ranging from categories II-VI[60]. Table 15 below provides some examples.

Sacred sites may exist in more or less natural ecosystems, cultural landscapes or managed landscapes and when they occur in protected areas they need to be fully incorporated into management strategies in cooperation with the relevant faith and community groups.

Category III – a natural monument – is therefore only one possible management option. Highly sacred sites where human visitation is discouraged may benefit from being classified as category Ia. Sites including retreat or hermitages centres, where solitude and silence are essential, could qualify for category III[61]. Other sacred sites, found in managed protected landscapes, should best be placed under other categories, notably category V. Therefore while IUCN should provide additional advice about approaches to management of all protected areas containing sacred sites, or landscapes, as well as for the cases of sacred sites that could also become protected areas, there is no limit on the category in which they occur and sacredness is therefore not a distinguishing feature for any category in particular.

IUCN and the integration of sacred sites in protected areas

Over the last years IUCN through the WCPA Task Force on Cultural and Spiritual Values of Protected Areas (CSVPA) and in collaboration with UNESCO has been developing draft guidelines for the Management of Sacred Natural Sites in protected areas[62], based on the body of case studies presented at the 2003 Kunming workshop UNESCO 2003) and the 2005 Tokyo International Symposium (UNESCO 2005). At present these guidelines cover most important management issues related to sacred natural sites in protected areas linked to indigenous or primal traditions; a parallel process for developing guidelines for management of sacred sites related to mainstream, institutionalised religions has been initiated by the Delos Initiative of CSVPA.

Relevant recommendations made by the participants of the Tokyo International Symposium are summarised in the box below:

Box 8: Excerpted recommendations from the Tokyo International Symposium

1. Considering that sacred natural sites and cultural landscapes are of vital importance for safeguarding cultural and biological diversity for present and future generations;
2. Recognizing that many sacred natural sites have great significance for the spiritual well being of indigenous peoples and local communities;
3. Noting the need to promote and safeguard cultural and biological diversity, particularly in the face of the homogenizing forces of globalization;
4. Bearing in mind that sacred natural sites, cultural landscapes and traditional agricultural systems cannot be understood, conserved and managed without taking into account the cultures that have shaped them and continue to shape them today

IUCN works in different ways to integrate cultural and spiritual values in protected areas, fostering positive synergies throughout the world. It aims to ensure the effective protection of sacred natural sites and their recognition as contributors to biodiversity conservation and the objectives of protected area systems. Through its Secretariat programmes, IUCN implements projects and actions in this regard in several countries of Asia, Africa and Latin America. Through the work of the CSVPA, WCPA has enabled much evidence to support the integration of cultural and spiritual values in protected area management, and the development of policies, tools and actions to promote the protection of sacred sites. Within CSVPA, the Delos Initiative focuses on the sacred natural sites in technologically developed countries throughout the world in order to maintain both the sanctity and the biodiversity of these sites.

CSVPA's work enables WCPA to play an important role in redressing the imbalance between the emphasis given to the tangible and intangible aspects of protected area management. This role can be enhanced by assisting WCPA members, protected area agencies and the protected areas community to identify and manage the cultural and spiritual attributes of protected areas as a means of maximizing their contribution to society.

[60] For more information visit the web site of the IUCN WCPA Delos Initiative at (http://www.med-ina.delos/org).
[61] There are sacred sites devoted to silence and solitude, for instance those used for retreats, by Daoist or Christian hermits as well as indigenous people. Others sacred sites that are not, such as El Rocío-Doñana in Spain which by its own nature is attracting huge crowds in pilgrimages, who practice chanting and celebrations, usually in loud voice, for days or weeks.
[62] The UNESCO/IUCN Draft Guidelines for the Management of Sacred Natural Sites can be accessed at http://topshare.wur.nl/naturevaluation/75082

Table 15: **Examples of sacred sites in IUCN categories**

Ia	**Strict Nature Reserve: protected area managed mainly for science**		
	Sri Lanka	Yala National Park	Significant to Buddhists and Hindus and requiring high levels of protection for faith reasons.
	Russian Federation	Yuganskiy Kanthy	Significant to Christianity. The protected area has been created around Lake Numto –a Khanty and Nenets sacred place– in Beloyarsk region.
Ib	**Wilderness Area: protected area managed mainly for wilderness protection**		
	Mongolia	Bogd Khan Mountain	The Mountain is significant to Buddhism and previously to shamanism. The Mountain has been officially designated as a sacred mountain by the state. Evidence exists of wilderness area declaration dating from 1294.
	Mongolia	Dornod Mongol	Significant to Buddhism. Vangiin Tsagaan Uul (White Mountain of Vangi) is a sacred Buddhist peak within the reserve.
II	**National Park: protected area managed mainly for ecosystem protection and recreation**		
	Malawi	Nyika National Park	Large area containing four sacred sites, which local people can still use for rainmaking ceremonies.
	Japan	Kii Mountains National Parks and WHS.	Several Shinto and Buddhist temples, sacred sites for and pilgrimage trails for both faiths in continuous use for over one millennium
	India	Great Himalayan National Park	Includes many places of religious importance for Hinduism.
III	**Natural Monument: protected area managed mainly for conservation of specific natural features**		
	Cambodia	Phnom Prich Wildlife Sanctuary	A small area within the sanctuary is a sacred forest and therefore a natural monument (another example are the *kaya* forests of Kenya).
	Russian Federation	Golden Mountains of Altai	Sacred for many different faiths: Indigenous, Christian, Buddhist, and Islamic.
	Greece	Mount Athos WHS peninsula	Stronghold of Orthodox Christianity including 15 monasteries and a large number of hermitages with over one millennia of continuous monastic activity.
IV	**Habitat/Species Management Area: protected area managed mainly for conservation through management intervention**		
	Lebanon	Qadisha Valley and the Forests of the cedars of God WHS	Sacred forest to the Christian Maronite Church, including a significant monastery, hermitages, and residence of religious authorities.
	Borneo	*tembawang* gardens	Some sacred sites will need continual intervention or even be planted -such as the *tembawang* gardens that contain high levels of biodiversity
	Sri Lanka	Peak Wilderness Park, (Sri Pada or Adam's Peak)	Sacred natural site for Islam, Buddhism, Hinduism and Christianity, attracting many pilgrims of all these faiths.
V	**Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation**		
	China	Xishuangbanna National Park	Landscape with several sacred sites (groves and mountains), which have long been managed by the community and are part of an important and biologically rich cultural landscape.
	Romania	Vanatori Neamt Natural Park	The spiritual heart of Romania, including 16 Christian monasteries, along with outstanding wildlife: European bison, brown bear and wolf populations.

	Spain	Montserrat Nature Reserve & Natural Park	Christian monastery with centuries old hermitages which has been a pilgrimage centre since the 14th century. Today it is the most heavily visited protected area of Spain
VI	**Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems**		
	Ecuador	Cayapas Mataje	Sustainable use area said to contain the world's tallest mangroves and important spirit dwellers that are worshipped by local people.
	USA	San Francisco Peaks National Forest	Sacred to over one dozen of Native American tribes, mainly the Navajo.
	Egypt	St Catherine Area WHS - Mt Sinai	Mount Sinai is sacred to Judaism, Christianity and Islam. The ancient monastery of St Catherine is WHS.

At the First Workshop of the Delos Initiative held November 23-26 at the Monastery of Montserrat in Catalonia, Spain, the participants incorporated the experience and knowledge they gained during the case-studies preparation. Some of these experiences were summarised in the "Montserrat Statement"[63].

Box 9: Excerpted from the Montserrat Statement of the Delos Initiative 1st workshop

RECOGNISE that for assurance of long-term sustainability, conservation goals, programs and messages need to be grounded in deeply held values, beliefs, ideas, and practices. The conservation community needs to recognise these aspects and give these deeply held values, beliefs, ideas, and practices the place that they deserve in the conservation of protected areas. This constitutes both a challenge and a great opportunity to build further support for the conservation movement, involving partners and stakeholders that up to the present have not been supportive, because they felt excluded by the materialistic outlook that nature conservation has often adopted;

RECOGNISE AND CONFIRM the actual existence of sacred natural sites in all of the IUCN categories of protected areas found in technologically developed countries;

FURTHER ACKNOWLEDGE that positive synergies between natural, cultural and spiritual values extend to sacred sites beyond the boundaries of designated Protected Areas and therefore function as a vehicle for supporting and communicating nature conservation;

The benefits of integrating sacred sites in protected areas

Because sacred sites areas frequently also hold high biodiversity values, these sacred natural sites or sacred landscapes hold considerable potential to serve as a traditional blueprint for restoring and safeguarding ecosystem functions whilst supporting conservation efforts and consequently developing "people-inclusive" management objectives (Verschuuren 2007). In addition, because of sacred natural sites' unique intercultural and interdisciplinary character (see figure 10) they can be a suitable means for environmental education, cross cultural learning and intergenerational transmission of spiritual and bio-cultural knowledge. These potential benefits call for safeguarding sacred natural sites and their integration into conservation and ecosystem management strategies. Even though a precautionary approach and sensitising to cultural and spiritual values is a prerequisite conservation management has the ability to play a largely facilitating role in this process.

The most common view shared by institutionalised and indigenous spiritual traditions alike is that the world is a multiple level hierarchic reality (Smith 1977). Figure 10 shows these relationships simplified as three different planes that overlap. It is a way of showing that management of sacred sites should consider all values and stakeholders involved. Therefore, it is necessary to acknowledge that many different worldviews coexist and each worldview may have its own hierarchy of values. Within these worldviews different traditional cosmological sciences have evolved over time, often in harmony with nature, many of which are still alive in different regions of the world. Thus, to gain new allies for protected areas, especially those that include intangible values, it is important to focus on the common ground, instead of insisting that every body accepts the worldview of modern science[64].

Embracing the concept of sacred natural sites, it is evident that focal areas of spiritual values and cultural significance exist. However, it is of critical importance

[63] The Montserrat Statement is available at the web page of The Delos Initiative at: http://www.med-ina.org/delos

[64] See also the position paper ' What do we mean by "wild nature"' of Deborah Bird Rose, of the Australian National University (ANU) giving an indigenous peoples' perspective that challenges some western notions of nature and protection. Available at the categories summit website: http://www.iucn.org/themes/wcpa/theme/categories/summit/papers/Whatdowemeanbywild.pdf

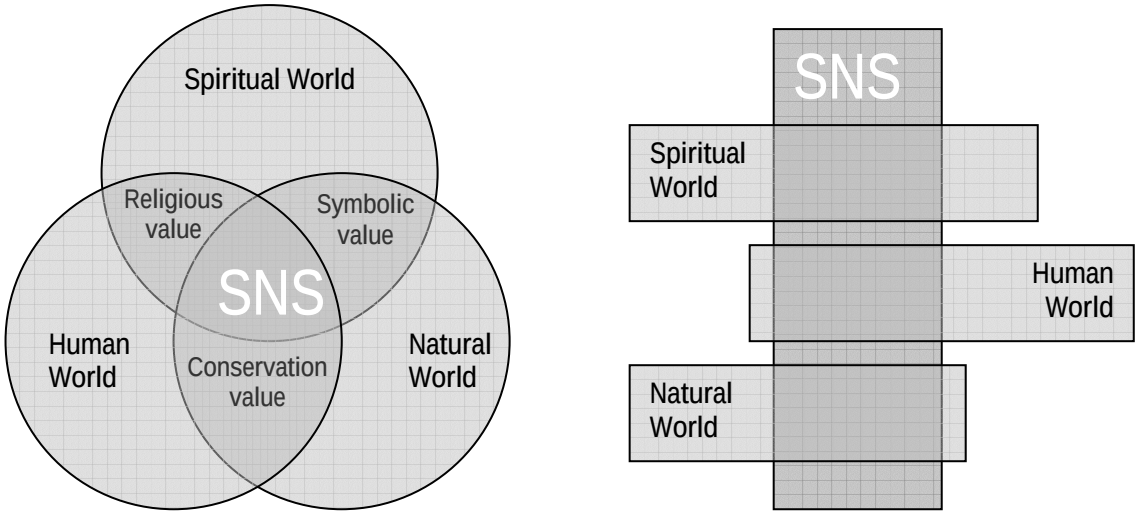


Figure 10: **Constituents of Sacred Natural Sites, top and side view (Source; Verschuuren 2007)**

to recognise that in many cultures and traditional worldviews their importance generally extends to the wider landscape. Hence, in some regions the whole landscape can be permeated with spiritual significance.

Depending on the governance model of the protected area, the empowerment of custodians of sacred sites permits their participation in the management of sacred sites. Traditional custodians of sacred sites will need to be able to communicate and translate cultural and spiritual values of sacred sites where relevant to the management objectives. Sacred sites offer an excellent opportunity to engage in this dialogue and develop synergies that are environmentally sustainable and socially equitable.

From an ecosystem management perspective, care needs to be taken to ensure that cultural and spiritual values do not jeopardise biodiversity values (Shepherd 2004, Verschuuren 2007,). Integrating sacred sites, or more broadly, the perception of sacredness of nature, in conservation plans can only be achieved when doing this across ideological, physical and institutional borders, in and outside protected areas! In short this is a process which integrates knowledge and wisdom. Therefore, including sacred sites in all protected area categories builds on their intercultural and crosscutting values which, in turn produces equitable synergies between spiritual, cultural and natural diversity in support of more holistic conservation objectives[65].

IUCN Vice President, Puri Canals *foresees that the future of conservation will be inspired by cultural change and spiritual values. Spiritual values of nature apply to everyone in the developing as well as the developed world. Understanding the relationship between nature and religion will create sustainable opportunities for both to live together on this earth. The theme of the World Conservation Congress 2008 at Barcelona; "A diverse and sustainable world" can best be explained as not just bio-diverse but diverse in all aspects, including cultural diversity. Canals further supports the inclusion of sacred natural sites in protected area management and hopes to see their value communicated at the WCC 2008, alongside that of cultural and spiritual values.(Personal communications at Delos 1st workshop December 2006).*

Key Messages

1. **IUCN should advance on cultural issues** and in the future IUCN's Guidance needs to include explanations of its key concepts, such as "living cultures" and "spiritual significance". A simple change in the IUCN's definition of protected areas from cultural resources to "cultural values" would mean a lot

2. **The cultural and spiritual values of protected areas** should be better reflected in the whole range of categories, where at the moment they are absent or insufficiently recognized

[65] Being aware that in some indigenous worldviews the concept of sacred is absent, precisely because its opposite, profane, is not recognized as real; hence, everything is perceived as sacred. In that they coincide with the non-dualistic dimensions shared by mystics of mainstream faiths (Smith 1977).

3. **IUCN protected areas categories** should accommodate Sacred sites and where appropriate be recognized as legitimate components of protected area systems in line with recommendation 5.13 from the Vth World Parks Congress
4. **Synergies** between conservation management and traditional sacred sites management should be maximized in order to maintain and achieve sustainable and equitable management aims. It may be the case that the two sets of objectives are quite easily served by the same measures
5. **Adaptation** to the reality of sacred sites in terms of categorization and management approaches should be considered when this increases the extend to which there is or could be convergence between the protection/management measures required for spiritual values and those required for natural heritage values
6. **Integration of sacred sites** in conservation management should be based on involving multiple aspects such as; scientific disciplines (natural and social sciences), environmental compartments (soil, water, atmosphere), stakeholders (views, interests and perceptions), scales in space (local, regional, national, international and global), scales in time (short-term versus long-term effects), cause-effect measures (adaptive management, ecosystem approach)
7. **Guidance and management implications** for different categories are in demand and currently being developed. Therefore, planning and management objectives should reflect sacred sites as an integrated component of planning and management plans and processes

The ecosystem approach offers global guidance towards opening a dialogue and finding common ground as a basis for communication in order to consider management and planning options regarding sacred sites (notable are the principles 2, 5, 6, 10,11 and 12).

10. Consultation

Despite the presence of specific support from the Spanish government, it proved difficult to get enough people from developing countries to the Summit. This was addressed, to some extent, by running some regional workshops before the main summit, in eastern and southern Africa and south-east Asia. Since the summit (and thus not included in these proceedings) a further meeting has taken place in Latin America. The European regional WCPA group discussed the categories at their annual meeting in 2006 and also undertook a detailed questionnaire on the categories. IUCN also organised a cross-industry meeting to have an industry perspective on the issue. Finally, IUCN organised an electronic forum about the categories, to give an opportunity to everyone – IUCN member or not – to feed into the debate. The results of all these are summarised in the following section and have also fed into and influenced the revision of the guidelines.

10.1. Southern and Eastern Africa Workshop

A workshop took place in Nairobi in October 2005, under the auspices of a UNEP-WCMC project looking at protected area categories in Africa. The meeting brought together protected area professionals from throughout the region and the following is a summary of the key proposals that emerged.

The IUCN definition of a protected area

- ✓ Biodiversity is usually a primary objective or outcome – or at least a main driver – for creating protected areas (although this is sometimes hidden)
- ✓ Other important objectives exist
- ✓ We need to be careful not to try to make protected areas do everything
- ✓ Objectives should be chosen *first* and the category be assigned afterwards
- ✓ The category should be chosen by reference to all the objectives in a sequence

Associated principles: the definition of a protected area would be strengthened by application along with a series of principles and some draft principles were given (some of which may not be applicable globally):

- ✓ Protected areas should sustain biodiversity, including the inherent long-term dynamism of the ecosystem
- ✓ Protected areas should provide social and/or economic benefits, particularly to local communities
- ✓ There should be equitable sharing of costs and benefits

Recommendations regarding the revision of the 1994 guidelines

- ✓ Include standards and benchmarks for the IUCN definition and categories
- ✓ Remove the names used in the current guidelines (e.g. national park) as these are confusing and add examples of use after the categories
- ✓ Add greater clarity in relation to freshwater and marine protected areas, and categories V and VI, and remove ambiguous language
- ✓ Include better guidance on zoning
- ✓ Include guidance on issues relating to prior informed consent, resettlement etc, referring to more detailed guidance that exists (e.g. World Bank resettlement, CBD benefit sharing)
- ✓ Include more information on monitoring and evaluation and the relationship between categories and management effectiveness
- ✓ There is a need for clarity on how the categories relate to other conventions
- ✓ A glossary of definitions should be added to the guidelines (which may be regionally specific, e.g. with respect to size)
- ✓ African countries should participate fully in developing the new global guidelines, which could be enhanced by developing a set of case studies specifically for Africa. Once this has been done a decision can be made about whether Africa requires subsidiary guidelines of its own

Ecosystem services

- ✓ There is general recognition of the increased importance of ecosystem services in national protection strategies and this should be more fully represented in the guidelines and categories (currently only category V refers to ecosystem services)

WDPA

- ✓ It was acknowledged that the data for many countries in the region was incomplete and / or inaccurate
- ✓ There was commitment from several countries to update the data currently on the WDPA and from others to look into processes which can gather appropriate information for further revisions of the data. In particular, there was agreement from some IUCN office in the region represented at the meeting to become more engaged in data collection for the WDPA.
- ✓ The UNEP-Regional Office for Africa also committed to help further develop and improve the UNEP-WCMC data for Africa
- ✓ Research is needed into gaps in the current database from African and on how this might translate into a specific African database. There remains some uncertainty about how this might be structured and its relationship with UNEP-WCMC and the WDPA
- ✓ There was strong support for inclusion of some kind of management effectiveness data on the WDPA or linked to the database

Conserving ecosystems

- ✓ Many areas useful for biodiversity are currently outside official protected area systems. These include community conserved areas, watershed protection areas, forest reserves, military lands, sacred sites, wildlife management areas, private protected areas etc
- ✓ It was suggested that a range of additional categories outside protected areas could be explored as a possible approach to recording these areas, both to recognise their contribution (and thus encourage managers) and to plan and record national conservation
- ✓ Later inclusion of such sites within protected area systems would require analysis to see if they really do provide biodiversity benefit and some form of guarantee of permanence

Assignment of categories

- ✓ In general, it was suggested that a category should only be assigned to places that had some legal status
- ✓ It was stressed that assignment should be voluntary
- ✓ Within countries, ideally a "task force" of relevant agencies is needed to assure that all suitable sites are considered; it was suggested that IUCN could play a convening role
- ✓ Assignment could include the responsible body providing data and category, the government submitting this to the WDPA and IUCN providing a checking function if necessary

Forest reserves

Forest reserves have generally been omitted from protected area systems. Some but not all of these are suitable for inclusion within protected areas and both Uganda and Tanzania are looking at options for listing suitable forest reserves within their national protected areas. A chart was developed during the meeting and represent the for identifying forest reserves suitable for listing on the World Database on Protected Areas and assigning categories. The same approach could be used as a model for other types of protected areas, community conserved areas and more generally to check existing areas on the WDPA.

10.2. South East Asia Workshop

Input comes from an invitation-only workshop with representatives from 16 of the 17 countries in the region, held over two days and from an open workshop, both taking place at the 2nd ASEAN Heritage Parks Conference and 4th Regional Conference on Protected Areas in South-East Asia, held from 23 to 27 April 2007 in Kota Kinabalu, Sabah, Malaysia

General recommendations relating to the IUCN protected area categories

- ✓ Effectiveness should influence the category rather than just management objectives
- ✓ IUCN should focus on biodiversity
- ✓ It may be necessary to assign categories to zones within protected areas
- ✓ The categories do not capture the holistic view of indigenous people regarding nature
- ✓ Categories will sometimes need to be revised over time
- ✓ The current categories should be retained rather than changed
- ✓ There is a need for greater flexibility in application of the categories
- ✓ There are concerns that protected areas are becoming too prescriptive
- ✓ Protected area categories should focus on natural areas as much as possible

Specific action points for WCPA

- ✓ Supply a more stringent checklist or matrix to help to define each category
- ✓ Develop a common framework for recognising local / community / indigenous peoples' CCAs
- ✓ Investigate third party validation of protected area categories
- ✓ Recognise the role of indigenous peoples in all categories
- ✓ Consider guidelines for categorizing transboundary protected areas
- ✓ Provide clear guidance on restricted activities in each category, e.g. extractive industries

Specific action points for ASEAN countries

- ✓ Produce an ASEAN interpretation of protected area categories – (in 1-2 years) – including
  - ✓ guidance about what counts or may count as a protected area (with special attention to timber production forests and community forests)
  - ✓ (possibly) minimum size of a protected area by category
  - ✓ region-specific interpretation of the categories
  - ✓ case studies from the region
- ✓ Possibly re-categorise protected areas once regional standards area agreed – including excisions, degradation – (but this will take much longer, a 5 year target or more)
- ✓ Develop regional data collection (with a 3 year target for getting the system established) leading to a publication on ASEAN protected areas
- ✓ One agency per country should compile data on protected areas
- ✓ Improve institutional / legal recognition for indigenous peoples' land tenure / security
- ✓ Encourage governments to begin recognizing CCAs
- ✓ Targeted awareness-raising regarding management objectives of protected areas
- ✓ Develop a monitoring mechanism for categories
- ✓ Recognise protected areas managed by the full range of stakeholders

10.3. Europe

WCPA Europe circulated an online questionnaire about the categories before the summit. Twenty people responded. Below is a summary report from the responses.

2. Scope of the review

1. Do you wish a see fundamental review or clarification and elaboration?

		Response Percent	Response Total
	No	50%	10
View	Yes, why and with what desired result	55%	11
	Total Respondents		20
	(skipped this question)		0

3. Definition of protected areas

2. Which definition do you prefer?

		Response Percent	Response Total
	CBD	26.3%	5
	IUCN	68.4%	13
View	Other (please specify)	15.8%	3
	Total Respondents		19
	(skipped this question)		1

4. Use of the Category system

3. What examples do you have of use of the IUCN Categories? Please specify

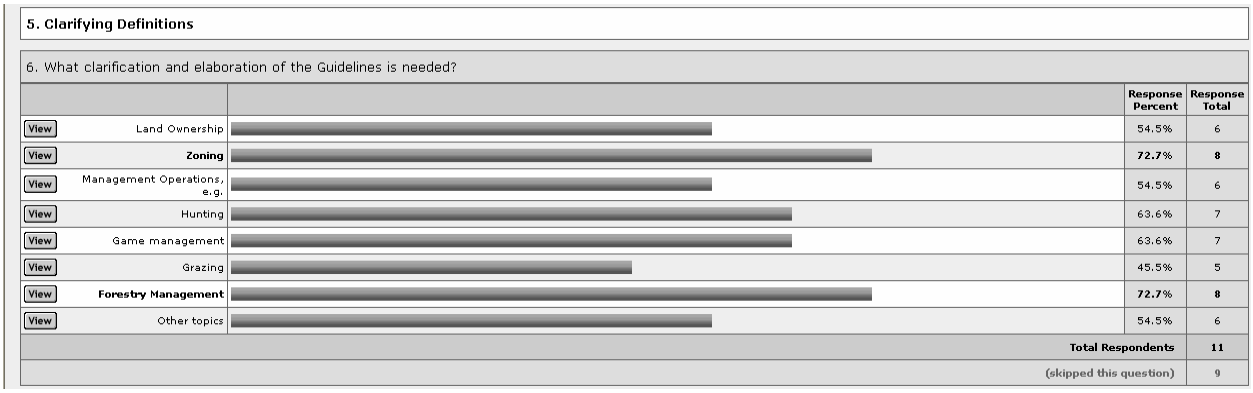
		Response Percent	Response Total
View	Legislation	64.3%	9
View	Policy	57.1%	8
View	Management	64.3%	9
View	Objective setting	50%	7
View	Zoning	64.3%	9
View	Other	35.7%	5
	Total Respondents		14
	(skipped this question)		6

4. There is some debate about whether all of the Categories are protected areas and also whether there are too many Categories or whether additional ones are needed. Are all of the Categories useful? Please tick all useful categories below

		Response Percent	Response Total
	Ia	82.4%	14
	Ib	76.5%	13
	II	88.2%	15
	III	76.5%	13
	IV	88.2%	15
	V	88.2%	15
	VI	58.8%	10
View	Are additional Categories or fewer Categories needed? If so please describe.	52.9%	9
	Total Respondents		17
	(skipped this question)		3

5. Do you consider Categories V and VI to be protected areas for use in Europe?

		Response Percent	Response Total
	Yes	83.3%	15
	No	5.6%	1
View	Please provide support for your answer	72.2%	13
	Total Respondents		18
	(skipped this question)		2



5. Clarifying Definitions

6. What clarification and elaboration of the Guidelines is needed?

		Response Percent	Response Total
View	Land Ownership	54.5%	6
View	**Zoning**	**72.7%**	**8**
View	Management Operations, e.g.	54.5%	6
View	Hunting	63.6%	7
View	Game management	63.6%	7
View	Grazing	45.5%	5
View	**Forestry Management**	**72.7%**	**8**
View	Other topics	54.5%	6
	Total Respondents		**11**
	(skipped this question)		9

Detailed responses

1. Do you wish to see a fundamental review or clarification and elaboration?

Responses were relatively evenly split. The opinion was expressed that the categories are being applied to conditions for which they were not designed, and as techniques, especially in Europe, are moving towards protected landscape approaches with a mixture of land use types, that some clarification is required. SNH believes that effort should be focused on clarification and elaboration of the guidelines, not their revision. Of the 55 per cent of wanted a fundamental revision, a number of reasons were cited including the need for:

- ✓ A better way to address the linkages between "production" and "protection." for example, productive economic activities such as tourism are often accepted within protected areas, while others economic activities such as agriculture have limited acceptance and still others are excluded such as mining. Protecting biodiversity at the landscape level requires a system of protection within the context of production.
- ✓ Clarification of the definition of primary management objective which avoids that two or more competing objectives can be listed within one category.
- ✓ Resolution of the conflicts emerging from the competing goals of iucn-categories, especially protection of dynamic processes in category ii and the habitats directive of the eu with its prevailing static approach.
- ✓ Revision of definitions in line with evolving understanding and practice.
- ✓ Clarification on what they can be expected to achieve and not achieve – e.g. Some think that whereas they are good for organising zonation and management objectives, incorporating them into legislation where the definitions may then Constrain future management options can be counter-productive.
- ✓ Clarification on the degree of detail within the definitions. Some responses indicated a need for more detail and other expressed concern that they are too detailed and this led to problems with application.
- ✓ Clarification in relation to regional systems of protected areas and new tendencies of spatial nature protection including more and more the stakeholders outside of the protected area.
- ✓ A better link with natural and (semi)managed areas in densely inhabited regions, incl. Central europe, combination of unesco´s biosphere reserves and eu nature 2000 areas

2. Which definition of protected areas do you prefer? (IUCN/CBD)

Most expressed support for the IUCN definition. SNH stated that the IUCN definition makes clear the role of protected areas in protecting and enhancing natural and cultural resources as well as biodiversity. Of those that supported the CBD approach, reasons include that the CBD definition is agreed by States. A recommendation for a new definition was suggested to encompass ecosystem processes and is not static, neither the IUCN existing definition nor the CBD definition are adequate.

3. What examples do you have of use of the IUCN categories? Please specify

- ✓ Legislation: Jostedalsbreen NP National Park, Law in Lower Austria demands to observe the aims of category II, Canary Islands, Equatorial Guinea, Cape Verde. IUCN recognition of Scotland's protected landscapes (e.g. NSAs and Regional Parks) has also been used to support planning policies.
- ✓ Zoning: National Parks in Norway and protected areas in Slovakia, The 75 per cent rule for category II is the overall aim to be reached in Bavaria within a period between 20 until 30 years, Canary Islands

- ✓ Management: National Parks in Austria follow mostly the management aims, Slovak protected areas, Canary Islands
- ✓ Policy: Used to guide recommendations on appropriate designation of the Igneada area in Turkey. It is a clear wish of Austrian politicians to consider the category II guidelines. Development of 'no go' areas for natural resource exploitation such as mining.
- ✓ Objective setting: Canary Islands

4. Are all of the categories useful?

Whereas the majority felt that the categories were all useful, some expressed concerns or comments:

- ✓ Category II and category V often conflict or mislead. Some distinction/clarification could be made between National Parks that have removed or banned people from living within them and those that have people living and working in them. Both are valued in their contexts and can deliver conservation and enjoyment.
- ✓ Before considering the value of individual categories, we need to assess the whole categories system in its entirety.
- ✓ There is an uneven status attributed to the different categories which may be unjustified.
- ✓ A category for protected productive areas. Perhaps a category VII.
- ✓ I have used Scientific Interest sites as small areas with external control. Very useful in islands with spot endemics.
- ✓ Co-ordination is needed with the world network of MAB/UNESCO's biosphere reserves, and with EU Natura 2000 areas is much needed.

5. Do you consider categories V and VI to be protected areas for use in Europe?

Most of the respondents identified that both category V and VI were important within the European context, especially as they can relate closely to Europe's productive or mixed-use landscapes. In Scotland SNH has made significant use of category V protected areas and consider that they have particular strengths in terms of 1) Serving as models of sustainable use and test-beds for sustainable development in rural areas; 2) encouraging positive links between local communities and the conservation of biodiversity, as well as other natural and cultural values; 3) providing the wider context for the planning and management of smaller protected areas which exist within them and 4) making crucial building blocks in landscape-scale conservation. However views were expressed that these categories need expanding in scope and currently can be difficult to implement practically. There is a possibility for them to have a closer relationship with Natura 2000 in the European Union as well as initiatives to establish ecological networks. But concern was expressed that in practical terms they were difficult to implement within national systems. Some guiding material already exists through the category V guidelines and the work of the category VI Task Force.

6. What clarification or elaboration of the guidelines is needed?

Although respondents identified that most of the topics listed required clarification. Issues such as land ownership were seen as particularly important, where criteria or sub-categories were suggested. Also when private ownership changes this may have implications for the management.

- ✓ Management operations: personnel, visitor management, restoration of ecosystems, naturalisation of wetlands and streams.
- ✓ Zoning – criteria were recommended for specific categories. Definition needed of the time period allowed for active management (intervention) until implementation of the 75 per cent rule. Clarification is needed to differentiate zones with different objectives. Protected area may contain zones that could be in any of the categories; how to put the site in a single category?
- ✓ Game management: the extent to which wildlife management (manipulation) can be extended to improve seeing wildlife for visitors to protected areas, clear rules when and what and how.
- ✓ Hunting: Some wanted clarification for categories V and VI, differentiation between organised hunting by the protected area as a management operation or general hunting.
- ✓ Grazing: the definitions of over- or under-grazing is very differently considered according to the region even within a sub-region or a mountain range and often more linked to cultural habits more that ecological considerations.
- ✓ Forestry management: Just criteria V and VI
- ✓ Other issues: climate change, mining, quarrying, tourism, commercialization (in a broad sense), entrance fees, role of protected in the context of sustainable productive land use, How sustained exploitation works is known in many fields (hunting, grazing). Protected Areas as part of an ecological network

7. Do you agree with the proposed classification of governance types? A. Protected areas managed by the government: federal or national ministry or agency, local ministry or agency or management delegated by government B. Co-managed protected areas: transboundary protected area, collaborative management C. Private protected

areas: declared and run by private individual, declared and run by non-profit organisations, declared and run by for-profit organisations D. Community conserved areas: declared and run by indigenous peoples, declared and run by local communities?

Most respondents agreed with this classification. Some disagreed with aspects and some wanted more clarification:

- ✓ Land ownership should be separated from the management (including by whom the protected area has been declared and run).
- ✓ Nearly all protected areas in Scotland are designated by Government on private land where social and economic activity has helped create or sustain the ecological or landscape interest. The active involvement of the land owner or manager is therefore often vital to achieving the aims of the protected area. This category of governance is not fully reflected in the proposed classification but should be. It is perhaps closest to the co-managed or collaborative governance model suggested in B.
- ✓ Option B should be divided into two separate categories.
- ✓ Within Option A, the component for local ministry or agency or management delegated by government" should be separated. As protected areas managed by local communities should have its own category, whether delegated or not.
- ✓ Why does Option D only include indigenous people? We must recognize and value farmers and other local people's connections and contributions to landscape protection.
- ✓ If there is a proper unification of IUCN, UNESCO and EU categories (which is badly needed) and we arrive at a functional system, will the need for such governance types become irrelevant?
- ✓ There is a problem with C and D in that the legal basis is too flexible, making it difficult for a regulatory agency to have oversight. Management standards can be highly variable and have an uncertain longevity; what happens when a community changes leadership, as some people advocate a different land use?

8. As a WCPA member, would you be prepared to participate in Verification or Certification exercises?

Most agreed that as WCPA members that they were prepared to participate in such activities. Those that did not agree said that they did not have capacity to participate.

9. Would the organisation who you work for be interested in independent WCPA advice on the assignment of protected areas to the IUCN categories?

Most said however that their organizations could not take part in independent WCPA advice. SNH indicated their interest in working on such issues subject to feasibility and cost.

10. What suggestions do you have for the gathering of protected area data and inputting it onto the WDPA?

- ✓ Before revising the IUCN categories, revising input to WDPA would not be suitable.
- ✓ The openness, transparency and consistency of the process could certainly be improved, though this will require some leadership and resourcing and it is not clear how this can be found.
- ✓ More valuable data for the WDPA would include simple information on logging, hunting, construction, settlements etc. allowed or not in any particular protected areas or parts of them.
- ✓ There is a serious need to gather and monitor information about the financial sustainability of protected areas.
- ✓ Asking protected areas for a annual reports according to a standardised method (see European Diploma).
- ✓ The update and the selection of the respected category should be done by independent experts (not state organisations).
- ✓ There should be an interactive web site
- ✓ We need a way of qualifying sites as "paper sites", with a more diplomatic language, e.g. marking the formal category with a mark* meaning it is just a potential base on the legislation, not a reality.
- ✓ The criteria become more transparent and objective.

10.4. Cross-industry meeting

Objectives of the meeting

IUCN hosted a cross-industry preparatory meeting for the Categories Summit to inform industry groups and companies of planned developments for categories and plans for the Summit, gain insights from industry perspectives on key challenges and needs on the application of the IUCN system, identify potential solutions to the above-mentioned challenges and needs for consideration during the Summit, assess the need to develop a plan of action for further interaction with industries on enhancing the application of the categories, and provide suggestions on industry and company participants to attend the Summit.

Background and update on protected area systems and IUCN categories

IUCN is convening a protected area Categories Summit in Almeria, Spain on 7-11 May 2007 to assess the strengths and weakness of the system and its application and to identify actions to strengthen the system and enhance its application including its use in supporting regional planning and connectivity initiatives. The Summit is expected to produce substantive input to a revised version of the IUCN Guidelines for Protected Areas Management categories, to be published and launched at the IV World Conservation Congress (Barcelona, Spain, 2008).

Companies and industry representatives are invited to submit **discussion papers** to the WCPA (deadline **28 February 2007**) and are welcome to sign up for email **updates** about the Summit and the categories: www.iucn.org/themes/wcpa/theme/categories/summit/summit.html

Participation at the Summit is by **invitation** only. Invitations will be sent during February 2007.

Of the total 75 spaces, a minimum of five industry representatives will be able to attend.

Future Trends and Strategies in Protected Area Designation

- Marine Protected Areas (MPAs) will significantly expand over the coming years. For categories to be meaningful and reliable, all stakeholders have to be involved. New technologies such as GPS and satellite imagery enable more sophisticated spatial planning and the zoning of MPAs, as well as more rigorous monitoring of activities. Many sectors, including fisheries, tourism, mining, and oil and gas, relate to MPAs and each poses both threats and opportunities. High seas represent a particular challenge to conservation. Nations are starting to work together to plan and regulate a rational, economic use of high seas.
- From the WWF perspective, protected area systems are not large enough to make an ecological difference (such as the provisioning of ecosystem services) thus WWF is focusing on "ecoregions". Though not traditionally involved in WWF's protected area work, there is growing recognition of the important role the private sector can play (contact Rolf Hogan rolfhogan@yahoo.com).
- The Parties to the Convention on Biological Diversity (CBD) have convened a Working Group on protected areas (http://www.biodiv.org/convention/pa-wg.shtml) to support and review the implementation of the programme of work on protected areas. The first meeting of the Ad Hoc Open-ended Working Group on Protected Areas was held in June 2005 in Italy and resulted in a number of recommendations to Parties of the CBD on establishing high seas MPAs, financing protected area's, developing tools for identifying, designing, managing, monitoring and evaluating protected area systems, and reviewing the implementation of the Work Programme, In line with the CBD's efforts to involve the private sector more, companies are welcome to become engaged in the protected area work programme (contact Nick Bertrand Nicolas.bertrand@biodiv.org). COP10 will feature MPAs.

Issues for Industry Groups – protected area policy, "no go" areas, opportunities and challenges

- Industry representatives were asked to outline their policies and commitments regarding protected areas. The ICMM member companies and Shell have committed to not operate in World Heritage Sites, demonstrating a willingness to accept the principle of certain areas of the world being off-limits to mining and oil and gas operations. Other extractive industry representatives around the table did not have formal policies on protected areas but instead employ a risk-based approach, taking account of unique values on a case-by-case basis. Fisheries and tourism representatives highlighted that there has been some debate over protected areas but no

policy outcomes. EUREPGAP outlined some policy positions which feature protected areas, including certified tea and coffee which cannot be produced with wood taken from protected areas, and shrimp farming guidelines which include reference to MPAs and mangroves.

- IUCN respects "no go" statements as they take into account the intrinsic value of biodiversity now and in the future. Business can choose to lead the way and frame the discussions, e.g. Goldmann Sachs has a no-lending policy for extractives operations in protected areas. "No go" statements are, on one level, an expression of a clear risk to a company, but should not exclude risk assessments of activities taking place outside of protected areas. Ideally, to maintain sovereignty, governments would take the decision to exclude incompatible activities from protected areas.
- When asked what industry representatives thought of the categories system, representatives felt that the categories increase certainty and can create a level playing field for companies; as such they are willing to operate in highly regulated system as long as the categories are implemented. Also, the categories system can help companies in countries with weak governance to create more equitable negotiation process for designating protected area's (for example in compensating lost revenue for designating a biodiversity-rich area identified by a company). Challenges regarding IUCN categories include the "one size fits all" approach – how can categories reflect different types of business that can be established in protected areas: for example, tourism compared to mining? Effective implementation is also a critical challenge. "Paper parks" are not helpful for industry or conservation and somehow the categories should relate to management effectiveness as well as objectives.

Carousel discussion summaries: industry inputs to the protected areas and categories processes and systems

1) **What information should be on the table for the identification and design of protected areas? Who should be involved in the identification and design process and how?**
The goal should be to have **government-driven process** of integrated management planning with **formal mechanisms** for obtaining **input from interested stakeholders,** including **private sector actors** who have **legitimate interests** in the areas concerned. Engagement with the range of stakeholders (communities, scientists, civil society, and the private sector) should continue **throughout the life of the protected area**. Government agencies responsible for these processes could **learn from/apply** tools which the private sector has used for project developments such as **consultation and disclosure** processes which recognize engagement of interested and affected parties.

2) **What information about protected areas do you need and how can this best be delivered to you?**
The **resolution** (1:1 million) of the data currently contained in the World Database of Protected Areas is **satisfactory** for global/regional assessments but needs to be **improved** for more effective **local use**, (field level planning requires 1:10,000 scale maps). **Detailed boundaries** for "no-go" areas and future planned protected areas are useful. A protected area is one factor amongst many that are needed for management, including species location, human settlements, land use, and active projects. protected area data should be **inter-operable** with existing publicly-available **data systems** and have a data **exchange** mechanism for individual scientists or companies to **improve data quality** through internal studies.

3) **How can we improve the application of the IUCN category system?**
To ensure the categories are consistently applied, national governments should be incentivised to **harmonise** their protected area categories with the international IUCN system and, possibly also **embed** the categories in legislation. The **aim and purpose** of the categories system should be made clear and **guidelines** should include principles for protected area management. The **implications** of **each category** should be made clear to involved groups. The verification costs and practicalities involved in establishing a penalty system for ineffective protected area's are too high to be viable but the initial protected area application presents an opportunity to ensure **quality control** for **sustainable effective management**. The assignment of a protected area should be recognized as a **long-term investment commitment** to manage the protected area.

4) **What innovations are needed to improve how effectively protected areas are managed? What can businesses and industry bring to the table?**

The private sector can play a role in improving the effective management of protected areas by sharing **corporate biodiversity data** (to design, monitor and set up controls for protected areas). They can also contribute to set **standards on best practices** for specific activities in protected areas, and develop and manage operations in **buffer zones** in ways that positively contribute to effective management of the protected area (including establishing private protected areas). Companies could **lobby** for designating protected areas as a **conservation tool**. However, it is fundamental to maintain **realistic expectations** on the level of support given the 100,000 existing protected area's. Given the large number of protected areas, more concrete partnerships are possible at the **local level**, near areas of company operations. Specific partnerships could build protected area managers' capacity in **business skills** (e.g. marketing, business planning) or **educate** local communities on sustainable use. Companies could also lend **political support** for specific protected areas and provide **services and infrastructures** to managers and communities.

10.5. E-forum results

Compiled by Kari Lahti

Introduction

This section is a distilled version of the collection of comments posted on the E-Discussion Forum web pages. Most of the statements are not straight quotes but summarized versions of the postings, which capture their original meaning. In order to account for possible human bias in summarizing the comments received, two additional documents are available: 1) a full collection of original comments/postings submitted online, organized by topic; and 2) summaries of the statements. There has been substantial commentary which, although valuable, did not precisely target the objectives of the Categories Summit and, therefore, have not been included in this summary.

Key issues addressed in the following paper are:
- ✓ Naming and Hierarchy
- ✓ Definitions
- ✓ Categories system
- ✓ Other related commentary

Naming and hierarchy

The argument that the use of names in the category system should be changed because of inconsistent use of terminology and application of the system was strongly opposed on the basis that the existing problem should be solved by other means.

Inconsistent use of the terms, National Park in particular, and ways to deal with the problem:
- ✓ If someone is misusing the system, it does not justify changing the very system
- ✓ Rather than removing the generic names "national park" or "wilderness" due to confusion, reserves must be named correctly in terms of the categories and their management functions.
- ✓ There is no consideration of the impact of dropping using the terms.
- ✓ In removing generic names from categories system, it would be attempting to treat the symptoms and not the underlying causes of political disputation over reserve areas.
- ✓ To drop generic reserve names would for a certainty be exploited by interests hostile to conservation, notably the resource extraction industries.
- ✓ The proposal for neutering the language is in fact a highly political initiative that will damage conservation goals across the globe.
- ✓ We cannot opt for the number system alone; not only for philosophical reasons but also for the fact mere numbers will not be able to evoke meaningful responses from relevant stakeholders.
- ✓ Certification is the best tool to correct misuse.
- ✓ IUCN should focus its efforts on providing clarification to ensure their proper use rather than abandoning the terms altogether

National Park as a term
- ✓ is one of the few aspects of conservation that is internationally understood.
- ✓ is the very symbol of a protected area.
- ✓ has tremendous power in the minds of the public and in a political sense.
- ✓ (and wilderness) is deeply evocative and full of inspiration and convey society's commitment to protecting nature in a way that simple numbers can never hope to imitate.

There was an understanding that the current IUCN category system creates a hierarchical order concerning the conservation values

Hierarchy and categories:
- ✓ IUCN needs to accept that the categories are a numerical hierarchy of protection.
- ✓ Categories are not of equal value with respect to biodiversity conservation.
- ✓ All the categories make an equal contribution to conservation but in different ways since the strength of the conservation element cannot be the same throughout.
- ✓ The numbering is causing "hierarchy of merit" and therefore consideration should be given to abandoning the numbering altogether.

Definitions

Definition of a Protected Area

The common view was that the current definition emphasises biodiversity protection more than cultural values and natural resources

Following are some concrete suggestions on what should be changed in the current definition of Protected Area:

- ✓ More emphasis on nature and biodiversity protection
- ✓ More emphasis on cultural and educational approaches to protection
- ✓ Need to integrate IUCN's policies and activities on equity
- ✓ Need to address questions of geodiversity
- ✓ To include the word "permanent"
- ✓ To include the word "freshwater"
- ✓ Wording "legal or other effective means"- causes confusion between legally notified national protected areas and UN listed protected areas
- ✓ Restrict the use of the term "Protected Area" to legally notified areas for the preservation /conservation of wild fauna and flora (or wildlife or wild biodiversity) and their habitat and the term Protected Zone for areas of high biological, natural and cultural value but not designated as protected area in official records.
- ✓ Biodiversity protection must be a primary objective, but need not be the sole objective.
- ✓ Only those sites where the main goal or outcome is biodiversity conservation should be considered protected areas. Note that this would include many sites which have other goals as priorities, such as cultural or spiritual. However, in case of conflict between protected area objectives and values, nature conservation has to be the priority.

Definition of the wilderness concept

There is strong opposition to how the wilderness theme has been interpreted in the working papers. Statements on the subject:

- ✓ In wilderness areas, active management is not necessary for biodiversity conservation.
- ✓ The wilderness concept does not imply the exclusion of people since IUCN's definition only excludes permanent settlements, not people.
- ✓ To maintain that humans must be present for ecological harmony in wilderness areas is strongly anthropocentric. IUCN, as the body responsible for promoting nature conservation, should not support anthropocentric assertions that the "land needs people".
- ✓ Claiming that wilderness is 'land untouched or unmodified by the influence of people' is not correct since the IUCN definition states that "A large area of unmodified or slightly modified land…"
- ✓ The definition and management objectives state that wilderness does include people, just not permanent settlements.
- ✓ There is not any suggestion that wilderness ignores or disputes "cultural significance".
- ✓ Wilderness clearly celebrates both natural and cultural features, and has had tremendous impact as an educational tool.

Categories system

Generally, there are many different suggestions on how to use and change the system to serve the very meaning of it.

- ✓ The definition of categories does not reflect that the recent trend in tourism is towards nature/culture-based tourism.
- ✓ IUCN should not help engineer shifts in land tenure within protected areas via the category system.
- ✓ Any categorization should allow systems of sustainable use that ensure the greatest benefits flow to the poorest sectors of society
- ✓ Categories could be based on approaches rather than objectives
- ✓ There should be a possibility of having different categories within a large protected area
- ✓ Redefinition of management types should be considered according to the types of society/ies involved, self-management or co-management regimes, and traditional and non-traditional types of landscape governance.
- ✓ The criteria to classify the categories need to reflect the global and national conservation value of the protected area.

The concern about the objectivity and accuracy in assigning the categories should be taken seriously.

- ✓ Because management categories can have such large social and economic impacts, it is imperative that classification is done as objectively and scientifically as possible.
- ✓ The fact that the category system is being used in a particular way does not mean that the system should be changed to accommodate that new use.
- ✓ There is a need to develop a means to identify, expose, and advocate against the misuse of any of the categories of the protected area system, e.g. to artificially inflate the protected area figures, or use of any one category as a proxy for the others.
- ✓ Clear criteria and associated indicators are needed in order to objectively classify a protected area within the IUCN categories.

Category I: the thematic discussion of the wilderness concept spurred most interest and raised a large number of questions. In addition, there were only a few other comments concerning the working papers on category I.

Category II: the discussion on the significance of keeping/deleting the name "National Park" received most attention and raised many questions. Apart from that there were only a few other comments concerning the working papers on category II.

Category III: the discussion over the working papers on category III mainly concerned the difference between geodiversity and biodiversity values.

- ✓ Definition of protected area with preoccupation on biodiversity does not do justice to geodiversity as a rationale for a protected area. "Geodiversity" (geology, geomorphology - i.e. the diversity of earth features and systems) is increasingly entering into the literature (e.g. WH sites criteria viii) and should be identified under the debate on the primary definition of a protected area.
- ✓ Many category III areas might score high on geodiversity, and the fact that they are of little interest from a biodiversity point of view, should not exclude them from consideration.
- ✓ We have to accept that sometimes it is difficult to draw the boundaries between a natural monument and a cultural site, particularly where archaeological remains are included within category III.

Category IV: the discussion over the working papers on category IV was limited and the emphasis was on encouraging good dialogue and co-operation between stakeholders.

Category V: the discussion on the category V was comprehensive and the key findings are:

- ✓ The area coverage of category V is particularly large in some countries and significant even globally.
- ✓ In many parts of the world the possibility of establishing new protected areas with high biodiversity value relies on assigning category V areas.
- ✓ Many, also politically, important large carnivore species like the wolf or brown bear inhabit category V areas but are missing from other categories.
- ✓ There is strong evidence that category V areas play a crucial role in maintaining "wild" biodiversity.
- ✓ Many category V protected areas are designated to protect biodiversity and/or landscape diversity and have good planning and management tools, adequate resources and suitable administrative structures.
- ✓ There is a need to develop more specific category V (and VI) subcategories that allow clear identification of which protected areas are conserving biodiversity that would not otherwise be conserved
- ✓ The negative attitude of nature protection or conservation as a practice excluding human needs can be weakened by promoting category V protected areas
- ✓ Removing category V (and category VI) areas would eliminate legitimate biodiversity protected areas, alienating large constituencies, and weakening national and international legal/policy/financial backing and attention to some of the most important biodiverse areas on earth.
- ✓ There is a need for more careful clarification to ensure category Vs meet the definition of protected area by ensuring that they emphasize natural biodiversity protection.

Category VI: the discussion on the category VI was partly included in the discussion on category V. Comments strongly stated that by including elements of sustainable use and development in the concept of biodiversity protection, governments and communities could be helped to adopt and contribute towards conservation activities. It was stated that the most important challenge of category VI is how to assure that protection of natural ecosystems and promotion of sustainable use are really two parts of the same main objective: integrated and mutually beneficial.

Other related commentary

General: there was a strong and well-grounded opinion about the importance of "periurban" natural parks and similar protected areas in safeguarding biodiversity, promoting environmental education and providing ecosystem services.

Governance: the potential problems with private protected areas (PPAs) were about their legal status and how to guarantee the permanence of protection. Establishment of a new category for PPAs was seen as irrational from the governance point of view since it was pointed out that the current biodiversity crisis demands strong public governance.

It was proposed that many collaboratively managed protected areas (CMPAs), community conserved areas (CCAs) and private protected areas (PPAs), with significant biodiversity and wildlife conservation value, would fit into categories V or VI.

Biomes: the freshwater issues were about including freshwaters within the very definition of protected areas, and promoting the importance of protecting these resources through flexible means to guarantee the availability of quality freshwater for people.

Management Effectiveness: it was suggested that the study on management effectiveness and evaluation methods should lead to a formal statement in 2008 by IUCN/WCPA. This should result in a set of recommended actions for governments to implement a relevant CBD goal by 2010. There was a concern that evaluation costs are a missing element in the management effectiveness approach since verification is very expensive and, if there is no government buy-in, it will be very difficult to finance.

The full e-discussion can be accessed on http://wcpa.almlet.net/

11. The Categories Summit

The summit itself took place in May 2007 and collected together over a hundred people from around the world, who spent an intense week addressing the key issues that had been identified by the expert papers and the public debate.

Whilst the meeting was not decision-making – final decisions about the IUCN categories will be made by the WCPA Steering Committee – it was highly influential in setting policies and in getting a feel from IUCN members about key concerns and how these might be addressed. Questions were addressed in plenary, through a series of workshops and eventually by voting in the main session.

The following section summarises some of the key results.

11.1. Key issues for the IUCN Categories Summit: Spain 2007

Delegates to the summit were asked to consider a range of key issues, outlined in the paper below

Background

The IUCN-WCPA categories task force has been charged with overseeing the development of revised guidance to application of the IUCN protected area categories. The meeting in Spain in May 2007 is an important opportunity **to discuss key issues related to the IUCN protected areas definition and categories with a wide range of stakeholders**. It is not the only opportunity and is one stage of a continuing process. The task force draws on a resolution approved by IUCN members at the 2004 World Conservation Congress (WCC) and recommendations from the 2003 World Parks Congress (WPC) – both are attached. Notwithstanding previous consultation and the WCC resolution, IUCN has made it clear that the Summit should be a chance to air new ideas and perspectives. This paper summarises issues where IUCN is seeking input from delegates in Spain.

1. **Protected area definition**: IUCN needs to decide ***whether the current definition of a protected area is correct*** and, more importantly, ***to clarify how this definition is interpreted***:

- ✓ ***Wording of the definition***: most stakeholders seem to support the definition and this was also the conclusion of the 2003 WPC and 2004 WCC. However, it has been suggested that IUCN should add some wording to provide greater emphasis on freshwater ecosystems
- ✓ ***Interpretation of the definition***: there is disagreement within IUCN about whether the definition implies that biodiversity should always be a primary aim of protected areas or can sometimes be a secondary aim (to e.g. wilderness values, cultural values etc). Our own brief survey suggests that there is a fairly even split amongst IUCN members; currently both interpretation are used, which is confusing and ultimately weakens the system. ***It has been agreed that we need to clarify this issue***.

Key issues

■ Do you support keeping the current IUCN definition?

■ Does the definition imply that biodiversity should always be a primary aim in protected areas?

2. **Protected area management categories**: issues here are whether IUCN should ***add or subtract from the current categories*** and whether ***guidance to the categories*** needs revision:

- ✓ ***Changing the categories***: WPC, WCC and the Convention on Biological Diversity all support the current six categories. The only specific issues that have been raised are:
  - o Questioning whether categories V and VI meet the definition of a protected area
  - o Suggesting that categories II-VI might also be strengthened by introducing subdivisions, as is the case with Ia and Ib
- ✓ **Revising the guidance**: many stakeholders have said that the 1994 guidance is unclear or out of date. A set of papers have been prepared that seek to analyse the current guidance and produce updates and revisions where necessary. Revision of the guidance was also proposed in the 2004 WCC resolution

Key issues

■ Are the categories correct?

■ What categories or issues require further guidance?

3. **Process for assignment of the categories in the UN List of Protected Areas**: in the past assignment of categories in the UN List has been left to governments or, failing that, directly to the assessment of UNEP-WCMC. Stakeholders are asking for ***clarification of the international assignment process*** and also want a ***role in the decision about which category is suitable*** for a particular protected area. Three connected issues have emerged:

- ✓ ***Assigning categories***: proposals are tabled for clarifying the process of assignment. Delegates will be asked to advise UNEP-WCMC and the WDPA consortium about which would be best
- ✓ ***Challenging categories***: there are calls for a "grievance procedure" whereby groups (e.g. conservationists, communities, industry) can question if a category is correctly assigned

- ✓ ***Verifying categories***: one option would be for IUCN to investigate a system of certification or verification, as has been tested in Europe

Key issues
- What is the best process for assigning categories at international, national and sub-national levels?
- Should IUCN support some kind of grievance procedure for challenging categories?
- Should IUCN investigate further ideas for formally verifying categories?
- What process should be in place to reassess categories of protected areas?

4. **Principles for use of the categories**: categories are judged in terms of their objectives – in theory if a management authority says that an area is managed as a protected area, this is sufficient to ensure recognition. It has been proposed that ***the new category guidelines include principles for assignment*** to avoid both "paper parks" and the tendency for governments to add "protected areas" to the UN List that provide little in the way of real protection

Principles for the categories: suggestions included:
- ✓ Minimum standards for protected areas in terms of management etc
- ✓ Participatory approach to include more interest groups in protected area decisions
- ✓ Transparency in terms of decisions making
- ✓ Rights-based approach to assure the rights of individuals and groups

Key issues
- Should application of the protected area definition and categories be accompanied by principles or minimum thresholds?
- If so, what should these be?

5. **Management effectiveness**: IUCN has always defined categories by management objective – i.e. intention – rather than the effectiveness of delivery. Some stakeholders think that it should be possible **to challenge a category if management is not meeting the objectives**, while others believe that protected area management effectiveness assessment **should consider categories in more detail** within assessment systems. Issues to discuss thus centre on:

- ✓ Bringing effectiveness into the assignment of categories by:
  - o Linking the category not only to objective but also to management effectiveness
  - o Making the IUCN categories a particular focus for assessment systems

Key issues
- Should the protected area category be influenced by how effectively it is managed?
- Should assessment of management effectiveness specifically look at the category?

Other issues

Many of the other issues will be addressed in workshop sessions but IUCN is seeking guidance on a range of technical issues relating to the use and application of the categories in different biomes, with different partners etc. Some issues are outlined below (this is a summary – papers contain more details) in table 16.

Table 16: **Summary of issues discussed at the Summit**

Issue		Proposal / questions	Notes
1	**Marine protected areas**	**1. There should be a special "**marine version**" of the IUCN category guidelines** **2. MAP specialists should periodically** review **the designation of categories to marine areas** **3. Need to clarify terms, stress the objectives-based approach and promote wider use of all categories in MPAs**	**Arising from the recent WCPA marine protected areas conference**
2	**Forest protected areas**	**1.** Forest reserves **are suitable for recognition as protected areas if they meet the IUCN definition** **2.** Planted forests **whose principal management objective is for industrial round wood, gum/resin or fruit production should *not* be counted as forest protected areas within e.g. category V and VI**	**Point (2) is already contained within *Forests and Protected Areas* by Dudley and Phillips, IUCN,**

Issue		Proposal / questions	Notes
		3. Logging**: is intensive logging ever permissible in protected areas (e.g. V and VI)?**	**2006.**
3	**Freshwater protected areas**	**Greater emphasis be given to freshwaters in the definition: "*An area of land,*** *inland waters* ***and/or sea especially dedicated to the protection and maintenance of biological diversity,*** *ecological processes and the ecosystem services provided****, and of natural and associated cultural resources, and managed through legal or other effective means.*****"**	**Discussed and promoted by the Skukuza Symposium with representatives from many NGOs**
4	**Relationship with World Heritage sites**	**Under the *2005 Operational Guidelines for the Implementation of the World Heritage Convention* (the OG), it would be unlikely to have a site inscribed on the WH list under criteria (ix) or (x) that would not meet the IUCN definition of a protected area category I-IV. Any inclusion of category V-VI would likely be as a component of a larger site dominated by category I-IV protected areas**	**This is not an official WH position**
5	**Relationship with Ramsar sites**		
6	**Relationship of industry with IUCN categories**	**1. Protected area designation should be subjected to an** Environmental and Social Impact Assessment **2. Developing an** appeals mechanism **relating to IUCN category designation** **3. Develop a** performance certification system **for protected area categories and management effectiveness**	**Proposal from the International Council on Mining and Metals**
7	**Governance types of IUCN categories**	IUCN should include the "governance matrix" in the new guidelines **recognising private reserves, community conserved areas and co-management approaches, and ensure that these are also represented on the WDPA.** **A joint WCPA-CEESP** task force **should look at CCAs**	
8	**Community Conserved Areas**	**Community conserved areas (CCAs)** can be accommodated in any category**. A process is needed to identify steps by which CCAs can be** formally recognised **as being part of a national protected area network**	**Proposal from CEESP**
9	**Private protected areas**	**Private protected areas can meet all requirements of the IUCN definition and** exist in any category**. IUCN will draw up guidelines for determining that private areas give enough guarantee of** permanence **to count as a protected area**	
10	**Sacred sites**	**Sacred sites are eligible to be listed as protected areas if they meet the IUCN definition and if the relevant faith agrees.** Sacred sites can be accommodated in any category**, but additional attention is needed in the new guidelines**	
11	**Names of protected areas**	**The current practice of listing both names and numbers in the UN list and WDPA is replaced by simply** identifying categories by numbers**.**	**WCC rec. However, some reactions have been negative**
	Principles for	**The following** principles **for assignment are suggested:**	

Issue		Proposal / questions	Notes
12	application of protected areas	The following principles for assignment are suggested: ✓ Participatory ✓ Accountable ✓ Equitable ✓ Transparent ✓ Performance-led ✓ Part of a continuum of responses ✓ Rights-based approach	
13	Role of categories in protected area planning	The new guidelines should contain tools for both choosing appropriate protected area category and governance type and for drawing on a range of protected area management objectives within a protected areas network	Some draft tools already exist and are available for comment
14	Scope of the categories	New uses of the categories have arisen since 1994 – how many of these should IUCN engage with? ✓ Forming the basis for legislation ✓ Helping to regulate activities ✓ Interpreting or clarifying land tenure and governance ✓ Providing information for advocacy groups ✓ Contributing to internal zoning and bioregional planning	
15	Zoning protected areas	A single management unit should be separately reported on, and accounted for only when: ✓ the areas concerned are defined in the primary legislation, and the areas (or zones) within the protected area must also have legislative approval ✓ the management aims for the individual parts are unambiguous,	
16	Role of categories in protected area policy	✓ Experience in application of categories to planning needs wider dissemination ✓ Better guidance on use of categories in policy is needed	
17	Certification of categories	IUCN investigates the possibility of developing a system for verification or certification of protected area categories, to provide a guarantee that the correct category is assigned.	Proposal coming from WCPA Europe
18	Restoration and IUCN categories	Restoration activities are possible in all categories but the type of restoration differs: [1] restoration through natural processes as a result of protection (all categories); [2] active, time-limited restoration (II-VI); [3] continuous restoration for biodiversity (IV-VI); and [4] continuous restoration for biodiversity and human needs (V-VI)	Consultation with the Society for Ecological Restoration International

11.2. Minutes of the Categories Summit

Part A: Discussion of key issues regarding the categories system[66]

The Categories Summit discussed a proposed revised definition of a protected area and six (6) questions regarding the category system. A number of points were raised by participants and a show of hands was called for by the Chair on each question. The responses to each question are shown below as either: (a) the majority of category summit participants were in favour of this proposal but there was not full consensus; or (b) There was consensus on this question – all participants agreed; or (c) there was no show of hands called for on this question.

PROTECTED AREA DEFINITION: The following revised definition of a protected area was put forward for discussion: "A specifically delineated area designated and managed to achieve the conservation of nature and the maintenance of associated ecosystem services and cultural values through legal or other effective means"[67]

The majority of category summit participants were in favour of this proposal but there was not full consensus. Discussion before the show of hands included the following points:

- ✓ Some participants suggested that the term "maintenance of associated ecosystem services" should be deleted from the definition but further defined in the explanatory text. The majority show of hands was however in favor of the definition as proposed; and
- ✓ There was agreement that further discussion on the final wording of the definition and supporting explanatory text was to be pursued involving a broader constituency.

QUESTION 1: There seems to be support for adding the following principle to further explain the definition – do you agree ? For IUCN, only those sites where the main goal or outcome is conserving nature should be considered protected areas. Note that this would include many sites which can have other goals as well, at the same level, such as cultural or spiritual, but in the case of conflict nature conservation has to be the priority

The majority of category summit participants were in favour of this proposal but there were two dissentions. Discussion before the show of hands included the following points:

- ✓ Participants were divided as to whether to include spiritual values in this statement. Some felt this term was too personal and subjective while others argued that protected areas clearly have important values for local communities and indigenous communities;
- ✓ It was emphasised that protected areas have many values and the relative importance of these will vary from place to place. However the majority of participants agreed with the view that nature conservation is the primary and overarching objective of protected areas;
- ✓ The lack of reference to marine protected areas was noted;
- ✓ Some delegates noted that using terms like "conflict" is not helpful and suggested that synergy and collaboration between objectives should be emphasized rather than starting from a premise of conflict.

QUESTION 2: In the application of the categories, you must first determine whether or not you have a protected area (i.e. apply the definition) and then decide which category is relevant – do you agree?

There was consensus on this question – all participants agreed. There was no discussion on this question.

QUESTION 3: (a) The consensus seems to be that we keep the current six categories – do you agree? (b) If so: feedback seems to be that there should be tightening of standards for categories and clarifying differences – do you agree?

[66] Record of Discussion on Day 4 of the Categories Summit on Thursday 10 May. This is presented first in these minutes in view of the relative importance of the topic.

[67] The current IUCN Definition of a Protected Area, as adopted at the 1994 IUCN General Assembly, is as follows: "An 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"

The majority of category summit participants were in favour of part (a) of this proposal but there was not full consensus. There was consensus on part (b) of this question – all participants agreed. Discussion before the show of hands included the following points:

- ✓ Many participants noted that more guidance in applying the categories is required rather than changing an existing system which is accepted in many countries. Discussion in the French speaking group emphasized the need to better clarify what each category means, while retaining flexibility at a national and local level in their application;
- ✓ Many participants emphasized the importance of having clearer and tighter standards and criteria for all categories and that this aspect must be given priority in the preparation of revised guidance on the category system;
- ✓ There was a suggestion from some participants to reverse the order of protected area categories (V) and (VI). Other specific suggestions included making categories Ia and Ib separate categories thus having a 7 category system. There were mixed views on both points and no show of hands was called for;
- ✓ There was questioning of why "recreation" is only included in the definition of category II, National Park when recreation occurs within all protected area categories;
- ✓ The need to ensure that all categories explicitly refer to MPAs was noted;
- ✓ Some participants suggested that having numbers for the categories implies there is a hierarchy, which is unhelpful, and that numbers for specific categories should be removed. Also some participants suggested that names of the categories should be removed. There were mixed views on both points and no show of hands was called for; and
- ✓ Many participants noted that category (V) and (VI) contribute to biodiversity conservation and that this should be given more emphasis in the explanatory text and guidance for the categories.

QUESTION 4: (a) All categories make a contribution to conservation but objectives should be chosen with respect to the particular situation – do you agree?

There was consensus on this question – all participants agreed. Discussion before the show of hands included the following points:

- ✓ Many participants noted that all categories are important and make a contribution to biodiversity conservation; also that a systems approach to protected areas is required. It was noted that one single category cannot protect the whole ecosystem and that a mix of approaches is required. Further that these approaches should be applied in a complementary manner;
- ✓ It was noted that, in some cases, categories were assigned for political or related reasons, and may not adequately reflect the real objectives of the protected areas nor the real contribution of these areas to biodiversity conservation;
- ✓ A number of participants also noted that not all categories are equal in every situation;
- ✓ Some participants emphasised that strictly protected areas, categories I through IV are particular important for supporting ecosystem dynamics, in line with principles of conservation biology; and
- ✓ Many participants noted the importance of including illustrated and practical examples in the revised guidance on the category system and that a "picture is worth a thousand words".

QUESTION 5: The consensus seems to be that category should be changed if assessment shows that the management objectives do not match those of the category – do you agree?

Participants agreed that this was a confusing question and there was no show of hands called for on this question. Discussion before the show of hands included the following points:

- ✓ The main issue is to ensure that protected areas are more effectively assigned to a category. Key issues include: "who assesses" and "who decides". Guidance on this should be included within the revised guidance on the category system;
- ✓ Many participants noted the importance of strengthening and supporting national processes for assignment of categories. Better guidance on this is essential; and

- ✓ Some participants noted the need to link this to certification systems for protected areas, which should be undertaken on a voluntary and non binding basis. The revised guidance on the category system should also support and enable the review and, as required, revision of categories assigned to protected areas. IUCN's role in this should be advisory and any change to categories should be undertaken by national governments.

QUESTION 6: Conversely the consensus from the workshop was that category should not be *changed* if management effectiveness is poor – do you agree?

There was consensus on this question – all participants agreed. Discussion before the show of hands included the following points:

- ✓ Many participants noted that - if a protected area is poorly managed - then the strategy should be to improve management rather than to change the category. A general aim should be to improve effectiveness in all protected area categories. It was further noted that poor management effectiveness should not lead to change of the category. Changing the category would set a dangerous political precedent; and

- ✓ The important link between governance and effectiveness was noted as was the need to improve the process for assigning categories.

Part b: record of discussion in sessions of the categories summit

DAY 1: MONDAY 7 MAY, 2008

Introductory Session: Setting the Context

Introduction from Junta de Andalusia. Miss Fuensanta Coves Botella, Regional Councillor for the Environment, Consejería de Medio Ambiente de la Junta de Andalucía.

Miss Botella officially opened the IUCN Category Summit and noted the Summit is a very important preparatory meeting for the IUCN World Conservation Congress to be held in Barcelona in October, 2008. It was noted that the key challenge ahead of the Summit is to review the category system, to develop a common and agreed set of standards and, importantly, to ensure the system is effectively applied.

The importance of protected areas and the categories system within Spain was noted. The importance of "speaking a common language" is particularly relevant in Spain in view of the number of actors involved, at national and provincial levels. Particular issues include improving the assignment process of protected areas to categories – a challenging process in Spain - and also improving coordination and cooperation between different stakeholders and authorities. In the province of Andalucia this issue is further complicated by the requirements of Natura 2000 and the large number of different areas which are established as protected areas – for example, 30 different types of protected areas are identified in Spain.

The conservation of biodiversity should be seen as the major priority for protected areas, including category V and VI protected areas, which play a major role in maintaining biodiversity in Spain, where traditional practices have often maintained biodiversity over many years. It is important to understand the cultural values of protected areas and develop tools to integrate these values into protected area management. It is also important to ensure marine ecosystems are protected within the full range of IUCN categories.

Miss Botella noted that Andalucia is committed to sustainability and effective environmental protection and is keen to share this experience with at the international level.

Introduction from Antonio Serrano, Secretary General for Territory and Biodiversity, Ministry of the Environment of Spain.

Mr Serrano noted the importance of the Summit in the context of IUCN cooperation with Spain on environmental issues and Spain's commitments to biodiversity conservation in general. Spain has developed a clear framework and a new law on Natural Heritage and Biodiversity, which will be addressed shortly in the National Congress. This has been based on a review and rationalization of different laws regarding protected areas and a clearer definition of protected area categories used by different authorities. This process has resulted in recommendations to maintain categories related to traditional use and activities, as well as to include a category for marine protected areas.

Mr Serrano emphasized that conservation is a priority goal for protected areas and emphasized that protected areas should be clearly defined areas that are monitored to ensure their protection. Monitoring should be undertaken by competent agencies and should aim to ensure that protection is being carried out effectively. For example, Spain has the highest number of protected areas within Europe, but monitoring must assess whether these areas are effectively delivering conservation goals. IUCN can and should play a role in this area and also in relation to the area of protected area certification.

Julia Marton-Lefèvre, IUCN Director General. Introduction to IUCN and its role in protected areas and the IUCN protected area category system.

Ms Marton-Lefèvre thanked all involved for the organization of this Summit and in particular noted the generous support from the Spanish Authorities. She noted that the Summit represents an important milestone for protected areas and for the development of the category system. The category system is a flagship product for IUCN and is an important tool for protected area management in general, as underlined by its endorsement and application by Conventions and International Agreements. However, there is a need to ensure that the category system can realize its full potential and also to ensure that it can be applied in a range of circumstances and environmental conditions. This Summit must thus ensure that the category system is enhanced and that the system is practical and useable. It is important to base the work of the Summit on practical applications, such as can be seen in the protected area system of Andalusia.

This Summit is underpinned by a great deal of work and consultation, including that involved in the Speaking a Common Language publication; an exhaustive process and product, which was endorsed by WPC[68] and WCC[69] members. Consultation with a wide range of partners and organizations is also very important and Ms Marton-Lefèvre noted the consultation with conservation groups and the private sector, prior to this Summit and suggested this should continue after the Summit in relation to the preparation of revised guidelines. Finally, Ms Marton-Lefèvre noted the importance of the Summit developing clear recommendations which will improve the category system, and thus in turn help to enhance conservation and livelihoods.

Nik Lopoukhine, WCPA Chair. The IUCN protected area category system and its international application, with particular reference to the CBD.

The CBD Programme of Work on Protected Areas notes the importance of the IUCN protected area category system, and, specifically: "*recognizes the value of a single international classification system for protected areas and the benefit of providing information that is comparable across countries and regions and therefore welcomes the ongoing efforts of the IUCN/WCPA to refine the IUCN system of categories.*."[70] This Summit will play a major role in advising how the category system can be refined and it is important that this is undertaken in an open and transparent manner. It is also important that there is close cooperation with the CBD Secretariat as we further progress on the refinement of the category system.

Statement from Peter Bridgewater, Secretary General, Ramsar Convention. The IUCN protected area category system and the Ramsar Convention.

Ramsar sites aim to: "*develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the maintenance of their ecosystem components, processes and benefits/services*". Designating a wetland for the Ramsar List does not in itself require the site to have been declared as a protected area. Such sites have no formal need for national level protection, and may allows for intensive use by human communities. The 2005 Ramsar COP included reference to the protected area

[68] The 2003 IUCN World Parks Congress, held in Durban, South Africa
[69] The 2004 IUCN World Conservation Congress, held in Bangkok, Thailand
[70] Section 31 of the CBD PA Programme of Work

system and noted the need to identify the protected area category which may apply to a particular Ramsar site. This implies that Ramsar sites can be included in the IUCN protected area List.

Fresh water ecologists have suggested that the IUCN definition of a protected area be amended to include reference to inland waters, introducing a number of proposals. A definition has also been proposed by the Ramsar Scientific Committee which also addresses this point. It is important to note that the management of fresh water ecosystems requires a "basin wide approach" which, by definition, often covers areas outside of formal protected areas.

Historical background and aims of the Category Summit

Kenton Miller, Senior Advisor, WCPA. History of the IUCN protected area category system.

Kenton Miller provided information on the early development of the category system, emphasizing that the system was devised as a tool to better communicate what protected areas were about and how they could contribute to conservation objectives. The original concept introduced the principle of focusing on the objectives of protected area management and aimed to place protected areas within their broader environmental and social context. This introduced the concept of a matrix of land uses within any given region, within which protected areas were "nested". The development of the original IUCN protected area system recognized the importance of working with local people and communities, as well as the fact that any system must be capable of implementation at different levels: from the local to the international level.

The major change since the initial development of the category system is in the growth of "interest groups". The initial development of the protected areas category system focused on government interests and this has now broadened to include civil society, the private sector and other stakeholder groups.

In relation to the future development of the category system it is important to confirm that biodiversity is the primary aim for protected areas. Given the current speed of biodiversity loss we need to move quickly. We need to be creative and flexible and look at new applications of the category system. For example the system must work at different spatial levels, not only at a horizontal level but also at a vertical level to accommodate, for example, the bottom of the seas and also the air above protected areas. All categories are important: we need categories I-IV but also V-VI are needed but they should not be used as "an easy way out" to avoid designating category I-IV protected areas. Certification is also important and we have to move in that direction.

David Sheppard, Head IUCN Programme on Protected Areas. Introduction to the reason for and aims of the Summit.

David Sheppard outlined preparatory work that has been involved in the preparations for this Summit, including the work associated with the preparation of the "Speaking a Common Language" publication and the various resolutions from IUCN Members on the IUCN protected area category system. Four key principles relating to the Summit were noted: (1) the Summit is not a decision making forum, but provides a key opportunity to obtain input and guidance from the some of the world's leading protected areas players in relation to the future development of the category system; (2) the aim of the Summit is not to change the basic architecture of the categories system (6 categories) but to improve the application and interpretation of the categories system; (3) an important aim of the Summit is to reinforce the value of the whole system of protected areas (from Cat. I to Cat VI), and not focus on particular components or categories in isolation; and (4) the category system is not the end in itself – it is an important tool to improve the extent and coverage of protected areas, as well as the management effectiveness of existing protected areas, for better biodiversity conservation and to better contribute to sustainable development

The overall objectives of the Summit were noted as: (1) to assess the conceptual and methodological strengths and weaknesses of the system and its application; and (2) to identify required actions to strengthen the system and enhance its application at different levels, including its use in supporting regional planning and connectivity initiatives.

Plenary discussion

The following points were made by Summit participants, following the presentations by Kenton Miller and David Sheppard:

- ✓ There is a need to make better use of all of the categories, and not consider category I-IV separately or in isolation from categories V and VI;

- ✓ The most important aspect is to ensure better application of the category system application. A key element of this is providing better guidance to WCPA members, protected area agencies and others as to how they can better apply and implement the category system;

- ✓ Any revision of the category system could be linked with the major CBD meetings in 2008, in particular the CBD COP meeting and the Ad Hoc Technical Meeting on Protected Areas in February, 2008. These meetings provide an excellent opportunity to highlight on going work and developments in relation to the category system;

- ✓ There is great potential for on going and endless discussion regarding the category system. It is important to revise the system, based on consideration and assessment of the various views, and then "close the page" and move on to implementation;

- ✓ Protected areas should address a full range of issues associated with "diversity", including the need for protection of geological and soil diversity; and

- ✓ Major future challenges relate more to improving the effectiveness of protected area management. This needs to be a primary consideration for the future of protected areas.

Plenary discussion on the IUCN definition of a protected area and proposals for categories

Nigel Dudley. IUCN definition of a protected area and the IUCN categories: choices are needed

Nigel Dudley noted that the revision of the category system responded to the Resolution from the 2004 IUCN World Conservation Congress (WCC). He noted the importance of both the process and the product and that the revision of the category system should consider the evolving direction of protected areas, as outlined in key products such as the Durban Action Plan. He also noted that the revision of the categories system must be based on an open and consultative process and that differences of opinion should be openly addressed.

The "Speaking a Common Language" Project has provided an important input to this process but many other opportunities for comment have been provided, including through: (a) background papers prepared for the Summit (60 in all); (b) regional and thematic meetings held prior to the Summit[71]; and (c) the web based discussion "e-forum" which was held in the 2-3 months prior to the Summit. All material arising from these fora is freely available on the IUCN web site.

The discussion[72] on the definition of a protected areas at this Summit is to present differing views, rather than to reach consensus. The definition is the fundamental "glue" which holds the category system together and it needs to be clear and well understood. There also needs to be more guidance on the interpretation of the definition, particularly in relation to the relative importance of biodiversity conservation. It was also noted that there are other definitions of protected areas, including that adopted by the Convention on Biological Diversity and the definition used in Europe in relation to forest protected areas. These different definitions have created confusion in some quarters.

There were a number of key messages from the e-forum, including:

- ✓ The importance of keeping the "basic architecture" of the category system but providing more detailed guidance on how they should be applied;

- ✓ strong support for having a range of protected areas while providing more emphasis on improving effectiveness and also reviewing options for certification; and 0.

- ✓ the need for IUCN to to set minimum standards for protected areas and for biodiversity conservation in general. It was noted that such standards should be higher within protected areas than outside.

Harvey Locke. Are all the categories equal? - Critique of categories V and VI[73]

Harvey Locke noted a number of points relating to the vital importance of IUCN categories I to IV for biodiversity conservation, including the following:

[71] Workshops on the Categories were held in Asia, Africa and in a number of specific countries, including Madagascar and Senegal. A number of thematic and issue based workshops were also held, such as the Private Sector Workshop on the Categories which was held in IUCN HQ in February, 2007.

[72] Matters outlined in this paragraph were discussed on Day 4 of the Categories Summit on Thursday 10 May (see Part A of these draft Minutes)

[73] Point and counterpoint: Part 1 of 2 presentations giving different opinions about the IUCN categories

- ✓ It is important to re-think the "new paradigm" on protected areas as put forward by some in WCPA and IUCN, to ensure there is greater emphasis on the role of protected areas in conserving nature;

- ✓ Nature conservation is the primary objective of protected areas. Human influence should not dominate in protected areas. The IUCN Red List of Threatened Species is an inditement of our efforts – it shows that nature and species are disappearing at a faster rate than ever before;

- ✓ The focus for protected areas, as promoted by IUCN and others, over recent times have given less attention to nature than is needed and this focus should be shifted back to nature conservation as the primary objective for protected areas;

- ✓ Agriculture is not an appropriate activity within protected areas. Harvey noted that: "*if it is ploughed it is not a protected area*"; and

- ✓ There is a need to establish more IUCN category I to IV protected areas in all countries.

Jose Maria Mallarach: The importance of applying all the categories[74]

Jose Maria Mallarach responded to Harvey Locke and noted a number of points, including:

- ✓ Category V and VI categories can and do make a valuable contribution to biodiversity and must be retained as part of the overall protected area system. category V and VI should be seen as complementary to and not in opposition to categories 1-IV

- ✓ The value of category V and VI has been shown over many years in Europe and the protection and enhancement of agricultural biodiversity is often an important objective for category V and VI. In total category V and VI protected areas cover 3.6 per cent of the earths surface – larger than the areas covered under categories II and III;

- ✓ In the Mediterranean, protected area categories V and VI cover up to 60 per cent of the territory and are vitally important for biodiversity conservation. On going management of many of these areas is required to preserve certain habitats in certain regions, including habitats for wild biodiversity. Many category V protected areas are just as effective as other IUCN protected area categories for biodiversity conservation;
- ✓ There has been a great deal of work on the application of categories V and VI which have led to series of guidelines being developed, including the IUCN Best Practice Guideline on Category V – this has led to improved practice in relation to the application of these categories;

- ✓ Any "throwing out" of categories V and VI from the IUCN category system poses major risks, both in terms of removing legitimate protected areas from the "protected area system" and also in alienating large constituencies and weakening national and international backing for some of the most important biodiversity areas on earth. Many category V protected areas also protect and maintain other values, including cultural and spiritual values; and

- ✓ In conclusion category V and category VI play a vitally important role in national protected areas systems and must be retained. It is further noted that nature conservation should be a priority where there is a conflict over values and uses within category V and VI protected areas.

Plenary discussion on perspectives in relation to different categories, session chaired by Marc Hockings

Kent Redford (IUCN protected area category Ia: Strict Nature Reserve)

These are typically highly protected areas which aim to protect biodiversity, and where human use is limited to specific conservation targets, such as research. The main objective is to protect natural processes. An important challenge is to better link Categories Ia and Ib and to harmonize the language relating to biodiversity. It is important to strengthen the effectiveness of management of these areas and to better develop and promote such areas for their critical role is addressing the catastrophic loss of species that is currently occurring.

Cyril Kormos (IUCN protected area category Ib: Wilderness Area)

Work on this category is led by the IUCN/WCPA Wilderness Task Force. Work is currently underway in relation to the development of guidelines for this category. These guidelines will give more emphasis to biodiversity conservation, but will also note the

[74] Point and counterpoint: Part 2 of 2 presentations giving different opinions about the IUCN categories

importance of preserving indigenous traditional use: wilderness should not be seen as places unaltered by humans. In some quarters wilderness is seen as a "discredited concept," but the reality is far different. In fact the wilderness concept is broadening in both its use and application. There are now 11 countries with specific wilderness laws and some forms of wilderness designation. In the USA, for example, there are 6-7 Indian tribes which use wilderness in their activities. The wilderness concept reflects a fundamental respect for wild nature and for the protection of biodiversity.

Craig Groves (IUCN protected area category II: National Park)

This is one of the best known brand names for protected areas. Although there is a perceived bias towards developed countries National Parks have been widely established around the world. The main aim of this category is for ecosystem protection and recreation. In future these aims need to be retained but also widened to include restoration of biodiversity. It is important that these areas represent major ecological features. Maintenance of ecological integrity is critical and this needs to be given greater emphasis in the development of revised guidance on the category system. The management of visitor use is particularly important and should be given more attention in the future, in particular to minimize ecological degradation. category II areas should be large enough to contain functioning ecosystems and to maintain ecological processes.

Nigel Dudley (IUCN protected area category III: Natural Monument)

This is an underused category and further work should be undertaken on its application. The current scope of this category should include natural ecology and should cover a reduced range of features. There may also be application of this category to sacred sites, and there is potential for engagement with faith based groups in this regard.

Grazia Borrini-Feyerabend (IUCN protected area category IV: Habitat/Species Management Area)

Category IV could be more effectively applied but this will require a tighter definition and a shift of emphasis to more active management. The challenge of managing species and habitats in a fragmented landscape is a particular challenge, where protected areas are one of a number of protected area designations. The application of this category to address the loss of species is a particular challenge.

Jessica Brown (IUCN protected area category V: Protected Landscape/Seascape)

This is an important category for the reasons already elaborated by Jose Maria Mallarach at this Summit (refer section above). Category V sites can play a vital role in protecting wild biodiversity and they also play an important role in buffering and connectivity. Such sites are important for protecting agricultural biodiversity and for protecting sacred and cultural values. It is important to recognize that these sites can achieve a range of objectives, including conservation and enhancing human livelihoods.

Claudio Maretti (IUCN protected area category VI: Managed Resource Protected Area)

These comments reflect an e-debate on category VI involving 60 persons, which was held prior to this Summit. The definition of this category should give greater emphasis to nature conservation. The overall aims for this category should be to protect natural ecosystems and promote sustainable use: these aims should be considered together in a synergistic way, rather than in opposition. Category VI protected areas are important as many ecosystems are not well protected and future options for strictly protected areas are limited in many cases. Category VI areas play a critical role in strengthening connections between protected areas and other land uses. They also play an important role in strengthening connections between people and nature. Lessons learnt in relation to category VI need to be better identified and disseminated: Guidelines should also be developed. Management effectiveness should be strengthened and major modifications or land use activity should be excluded. The internal debate within the protected areas movement about the relative importance of

Plenary discussion

There was a wide ranging plenary discussion which followed these presentations on individual categories. Key points included:

- ✓ All categories are important and internal debates about the relative importance of different categories can be counterproductive. As one delegate mentioned: "we need to fight against real threats not to fight amongst ourselves";

- ✓ Key challenges are to: (a) improve management effectiveness of protected areas in all categories - the highest possible standards of management should apply to all categories; (b) improve linkages between protected areas and surrounding land

uses; and (c) to mainstream protected areas into wider community agendas and debates – reflecting the message of the Durban Accord and Action Plan; (d) to ensure that protected areas are responding to future challenges such as climate change;

- ✓ The key starting point for the category system should be the definition of a protected area and this definition should recognize a range of objectives. However, in cases of conflict, it should be acknowledged that nature conservation is a priority. The definition of a protected area and of individual categories should be as clear and unambiguous as possible;

- ✓ A particular strength of the categories is their non binding nature for Governments and also there is flexibility in application. As one participant noted: "All countries are different and there needs to be flexibility for application in different countries". These key features should continue but further clarification and advice is required on the application of the category system, to enhance its use as an effective management tool;

- ✓ There is often a problem with assignment of an entire protected area to one category, particularly when there are a variety of uses occurring within these areas. Advice is also needed where protected areas are not meeting standards: systems of arbitration should be developed. Enhanced guidance on the category system should address these issues;

- ✓ There was some discussion on the use of numbers or names for categories. In general there was a feeling that both names and numbers should be used. There was a strong feeling that names that have a high brand recognition, such as National Park and Wilderness Area, should not be dropped;

- ✓ It was noted that nature conservation should also include "geodiversity", in relation to protection of important geological and geomorphological features;

- ✓ The guidelines should recognize that there are a range of management arrangements for protected areas, including governments, civil society and local communities. Revised guidance on the category system should recognize this;

- ✓ The work on categories should also be considered within the context of the CBD and in particular the Program of Work on Protected Areas;

National and regional experience with the categories system

Three workshop sessions explored perspectives from different protected area agencies from around the world. Each workshop was asked to identify: "*What are the key lessons from application of the IUCN category system in their country/region"*. The following key points were included in the report back from each Session.

Session 1: French speaking Countries

Only a few countries have used the IUCN categories even though there is interest in making more use of the system. Madagascar, as one example, has used the system within their protected area framework as a broad guide and has found it useful. Lessons from application from francophone countries have included:

- ✓ all category types should be used without a defined hierarchy, all are important and can be useful for conservation: this underscores the importance of a network of protected areas;

- ✓ The category system should not be rigid and should be capable of adaptation to different situations;

- ✓ More guidance is required in relation to the categories, particularly in relation to application of the system to areas of high cultural and spiritual value and application to issues such as agro-biodiversity;

- ✓ Developing countries have to address issues relating to local communities and the need to guarantee livelihoods of local people: protected areas have to be considered within this context and this issue should be reflected within the category system; and

- ✓ The need for zonation within categories is an issue that is confusing and should be addressed in the revision of the category system.

Session 2: Spanish speaking Countries

Lessons from application from Spanish speaking countries have included:

- ✓ the definition of a protected area is the key starting point and this should define the limits of

what is a protected area and what is – and is not – acceptable: protection of Biodiversity is the main objective and should prevail;

- ✓ There is a potential role for the category system in the certification of protected areas. For example, Mexico is certifying different protected areas under the IUCN category system and using this as one input to determining priorities for fund allocation and grants;

- ✓ There is a need to reduce the numbers of protected area definitions in use - IUCN, CBD, European Union all use different definitions - and ensure the definition arising from this categories Summit is clear and durable;

- ✓ A number of countries have used the category system in legislation but there should be flexibility in national level application. There are many different names used for different types of protected areas in Spanish speaking countries and this can and does create confusion;

- ✓ There were a range of views within this group in relation to using names or names for categories and the application of the categories in relation to zonation. In relation to zonation some participants thought that the system should allow differentiation for different zones within different protected areas while others thought this was more of an internal management planning issue;

- ✓ The use of the category system in relation to different planning standards, such as those covering protected areas under Natura 2000, was identified as an issue requiring further clarification;

- ✓ The category system should allow for different types of governance regimes for protected areas. Application in the marine environment is a weakness, which should be addressed in the preparation of revised guidance on the category system

Session 3: English speaking Countries

There is a wide variation in the application of the category system in English speaking countries. Some countries have included it within legislation and planning systems and others have not used it at all. Lessons from application from English speaking countries have included:

- ✓ On the positive side, the category system has provided a flexible approach to designing protected area systems and has been adaptable to different types of protected areas including community and indigenous reserves. Main messages from this application have included: (a) the system works and is useful; (b) all categories have to be used; and (c) the system can be useful as a tool for lobbying decision makers and for getting more funding from donors;

- ✓ Problems have included: (a) inappropriate application; (b) inadequate guidance on permitted uses within different categories; (c) lack of clarity in relation to application within different biomes, including the marine environment; and (d) the (incorrect) assumption that the system is hierarchical, with category I representing the "best" or most important and category VI representing the least important;

- ✓ There should be better communication about the category system and why it is important. More clarity is also required in the different definitions and how they are applied; especially for categories V and VI;

- ✓ The process of assignment is often weak and needs to be improved; in particular there is a need for a verification process. Countries need support in this process but the voluntary nature of the system is important and should be retained: categories should not be "pushed on" countries to apply;

- ✓ Aspects that should be covered in the revised guidance include: (a) the use of categories to develop innovative solutions for conservation management, such as in helping managers deal with climate change; (b) the relationships and linkages between protected areas and other land uses within the landscape; (c) improvement of effectiveness of protected areas, across all categories

Experience with the application of specific categories

Working Groups reviewed experience with the application of different categories. Groups were asked to identify*: (1) How adequate are these categories in guiding protected area planning and management? What needs to be changed and improved? ; (2) How can these categories be better promoted and applied in policy, in national legislation, and at other levels ?; and (3) How can the process for assigning these categories be improved ?*

Working Group 1: categories I and II

Key issues in relation to categories I and II were noted as:

- ✓ It was noted that the names should be retained for these categories: the terms "National Park" and "Wilderness" are major brand names with global recognition – these can be used to promote protected areas and conservation;
- ✓ The Working Group discussed the merits of combining category Ia with category Ib into one category but concluded that the existing separation should be maintained;
- ✓ Category I is generally underrepresented in the statistics in the World Database on Protected Areas (WDPA), possibly reflecting reluctance by countries to designate these protected areas. It was noted that there are many different interpretations of the term "wilderness";
- ✓ In relation to category II the Working Group noted that the objectives and criteria should be clear and strict rather than flexible; with management objectives linked to biodiversity;
- ✓ At present there is inappropriate use of category II in some countries due to the symbolic power and name recognition of the term "National Park". A mechanism for challenging category assignment should be developed which would be subject to mediation by an appropriate body, such as WCPA.

Working Group 2: categories III and IV

Key issues in relation to categories III and IV were noted as:

- ✓ the relationship between geological values (covering many category III sites) and natural values is important but has been given limited attention. More emphasis is required on this aspect;
- ✓ Category III areas – Natural Monument - tend to be smaller and are often well suited for environmental education and research. There is potential for these categories to be "nested" within other categories: for example a small category III geological site could be located within a larger category II protected area. Many Natural monuments also have important cultural values and may in fact be formal "cultural monuments"; and
- ✓ Category IV areas – Habitat/Species Management Area - should be used more explicitly to address species extinction; specific challenges exist with this category as species are mobile with ranges which may be greater than the protected area itself. Active management is particularly important for this category. Manipulation can vary over all or part of the site; zoning can be spatial and also temporal in relation to species management

Working Group 3: Categories V and VI

Key issues in relation to categories V and VI were noted as:

- ✓ The definition, objectives and criteria for these categories needs to be "tightened up" to ensure that inappropriate areas and land uses, such as commercial forests, are not included as protected areas. The definition of V and VI should be more oriented to the protection of biodiversity. Appropriate and inappropriate activities need to be better clarified in relation to these categories;
- ✓ The needs to be a clearer distinction between category V and VI. At present, there is confusion over the primary objective and language used in the existing category system in relation to categories V and VI; and
- ✓ Category V and VI are also particularly relevant in relation to bioregional planning and in adaptation to climate change. The particular relevance of category V and VI in the marine environment was also noted

Plenary Discussion

Key points from the plenary discussion which followed these presentations included:

- ✓ Assessment of effectiveness should be a key element of protected area management and should apply to all categories. Improvement of effectiveness is also essential if protected areas are to more effectively conserve biodiversity. The processes of assignment of categories and improvement of effectiveness need to be considered in a complementary manner;
- ✓ The category system must be as simple and clear as possible and avoid incorporating additional overlays and multiple classifications (such as implied by incorporation of different zones within protected areas). Flexibility in application is very important;

- ✓ Application of all categories in the marine environment requires further work. There is opposition from the fisheries sector to strictly protected areas (category I to IV) and categories V and VI will more commonly be applied. The best available science needs to be applied to identify "no take" zones within Marine Protected Areas. Zonation is particularly relevant for MPAs, which are often large and accommodate a range of uses. Many countries have introduced statutory zoning systems of which MPAs are one component;

- ✓ Better guidance on permitted activities within each category is required, particularly in relation to the level of acceptance of human intervention; and

- ✓ All categories are important and the notion of a hierarchy should be avoided. All protected areas should be considered in the context of a national system of protected areas.

Improving the application of the category system

Four workshop sessions assessed different aspects of the application of the category system; results are outlined below.

Working Group 1: How can we improve the assignment of protected areas to categories ?

Key issues were noted as:

- ✓ A problem is that different people and different organizations assign the categories, and there inadequate procedures to guide this process. More effective procedures and guidance should be developed and persons with a technical background in protected areas should be involved in the assignment process;

- ✓ There should be a consistent approach to the process of assignment of categories. This must include clear definition of responsibilities, particularly at national levels, in relation to the assignment of different categories;

- ✓ The assignment process requires clarity in terms of definitions and criteria and thus the revised guidance on the category system must ensure that all definitions, criteria and standards are as clear and unambiguous as possible. Terms must be clearly explained to minimize misunderstanding;

- ✓ There is some confusion as to the difference between categories V and VI and this need to be addressed in the revised guidance on the categories system. Better guidance on permissible uses within category VI protected areas is also required; and

- ✓ Assignment of protected areas to categories should not be undertaken by site managers but should involve national bodies working with and through external experts. WCPA input should be encouraged where possible and appropriate.

Working Group 2: Data Collection and Management

Key issues were noted as:

- ✓ The revision of the category system must be closely linked with the current plans to redevelop the World Data Base on Protected Areas (WDPA). The WDPA is based on two types of data input: (a) from national level sources, as reported through the UN List; and (b) from a range of sources as represented through the WDPA Consortium, which involves NGOs and a range of partners. There is current emphasis on improving the quality of the data and a decentralized approach to data collection;

- ✓ Accurate information is essential and a key element of this is effective and accurate assignment of protected areas to IUCN categories. This requires relevant and useful guidelines for the category system and also an effective and expert review process. WCPA has to be better engaged in this process. The issue of certification of protected areas is also an important issue and requires further assessment;

- ✓ The Working Group agreed that the WDPA should be the key system and that it needs further investment. Issues identified in relation to the WDPA included: (a) the need to map the footprint of overlapping designations; (b) the need to be able to handle data at different scales; (c) the need for consistency and clarity in terms of definitions; (d) the need to explore linkages with the CBD, in particular the Protected Areas Program of Work;

Working Group 3: Governance of protected areas and the category system

Key issues were noted as:

- ✓ The World Parks Congress (WPC) noted four types of protected area governance: (a) by government agencies, at various levels; 2) by

various parties together; 3) where an individual or group holds authority; and 4) where local communities and indigenous peoples are responsible. The WPC noted that all are legitimate and relevant, and are essential if we are to consider protected areas as a mosaic in the broader landscape, rather than as islands. The matrix for linking these governance types with the categories was developed from the WPC to assist the development of the category system;

- ✓ This Working Group endorsed the incorporation of the matrix on protected area governance within the revised guidance on the category system. It was noted that management and governance are different: with management encompasses what do we do and governance addressing who decides what we do;

- ✓ Key challenges in applying the Governance matrix within the category system include: (a) the different governance models are not recognized in all countries, thus limiting the application of these concepts; (b) in some cases there is a confusion between land ownership and statutory powers; (c) there is limited experience in the application of the category system in Community Conserved Areas, and a body of experience or case law needs to be developed; (d) applying the different governance types should not be used as a pretext for "letting governments off the hook" in relation to their fundamental responsibilities in relation to establishing and managing systems of protected areas; and

- ✓ In moving the this forward there is a need to integrate this with the work undertaken by WCPA and CEESP on protected area governance in general and on Community Conserved Areas in particular.

Working Group 4: Guaranteeing categories and improving protected area Management Effectiveness

Key issues were noted as:

- ✓ There has been considerable work on the assessment of management effectiveness in recent years and more than 5,000 assessments have been undertaken in 80 countries. This is a major contribution towards the target in the CBD Programme of Work on Protected Areas which calls on 30 per cent of the world's protected areas to be assessed. This work has resulted in the development of a common set of indicators, which has also been integrated into the work programs of the CBD;

- ✓ A range of management assessment evaluations have been undertaken, from those at the site level to those at the whole of system level[75].The message from these assessments is that any system needs to be relevant and useful – it should not be used for "naming and shaming" exercise. The approaches can provide good arguments for increasing resources for protected areas;

- ✓ It is important to link work on the category system with the assessment of management effectiveness. Key issues that need to be considered in relation to this include: (a) the assessment of effectiveness should not determine the category to which a protected area is assigned; (b) assessment of effectiveness should apply to all categories of protected areas; (c) assessment of management effectiveness could be considered in a similar way to the way in which protected area Governance has been added to the categories matrix; in effect this would add a third dimension to the categories matrix; (d) training and capacity building is needed in relation to this issue; (e) there is a need for caution in changing the assignment of categories or of removing protected area status, as a result of the assessment of management effectiveness – this can have political consequences.

Working with partners to improve the IUCN category system

Three workshop sessions assessed how to better work with different partners (organizations and groups) to ensure better application of the category system; results are outlined below.

Working Group 1: Working with the International Conventions and Agreements to improve the application of the category system

Key issues were noted as:

- ✓ Conventions can be used to promote the application of the category system: for example, the CBD Programme of Work on Protected Areas references the IUCN category system;

- ✓ IUCN has a key role in a number of Conventions, including the CBD, World Heritage and CITES and this also provides an opportunity to promote

[75] Such as the PA System Assessments undertaken in Finland and Australia (Victoria and New South Wales)

the category system in a range of different forums, as a useful and practical standard in relation to protected areas. Each Convention offers particular opportunities and these should be identified and promoted. There is particular scope for using the category system for harmonizing reporting on protected areas and related issues from the different Conventions;

- ✓ IUCN has a key role as a technical advisory body, as it is generally outside of political processes. IUCN and its Members should better communicate the category system as an IUCN standard which can be applied by a number of Conventions in relation to protected areas issues;

- ✓ Specific recommendations from this Working Group in relation to the application of the category system in International Conventions and Agreements included: (a) simplify the existing guidelines – often persons participating in Convention meetings are "politicians or decision makers" rather than "technical". Thus it is important that the revised Guidelines are as simple and clear as possible; (b) relevant text should be included in the revised Guidelines to address the issue of International Conventions and Agreements; (c) the revised Guidelines should be sent to the Secretariats of all relevant Conventions and Agreements, to be offered as a useful and widely accepted tool that may be useful for application within their Convention/Agreement; (d) consider holding regional protected area workshops that bring together technical experts and secretariats of Conventions and Agreements to ensure more cohesive and effective approaches to issues such as the category system.

Working Group 2: working with the Private Sector to improve the application of the category system
Key issues were noted as:

- ✓ The private sector is not homogenous although it is often "couched under one term" in discussions with IUCN. It is impossible for the private sector to talk with one voice on issues such as the application of the categories system;

- ✓ There was a preparatory meeting for the Categories Summit in Gland in February 2007, which involved representatives from a range of industry sectors. This reflected a high level of private sector interest in protected areas, in general, and the categories system in particular;

- ✓ The private sector should not be looked upon as simply a source of funding for project activities. There should be more of an emphasis on developing activities cooperatively which are of mutual interest and benefit;

- ✓ From the perspective of the private sector the category system represents a clear and logical framework for dealing with protected areas. There are particular opportunities in relation to linking the category system with the Project Life Cycle – from planning/designation to implementation to evaluation;

- ✓ The extractive industry representatives at the Summit requested adequate consultation in relation to the establishment of new protected areas, citing the example of Canada where mineral assessments allow for the identification of both conservation and mineral values. The potential of the extractive industry sector to contribute to the more effective management of protected areas, through site specific and other interventions, was also noted;

- ✓ It was noted that the private sector often has data available and skills in data management which can be useful for the planning and management of protected areas. The private sector has supported the strengthening of the World Database on Protected Areas (WDPA) through the Proteus project, with the aim of ensuring the WDPA is more accurate and robust;

- ✓ Private protected areas are becoming increasingly important and will play an important future role in conservation efforts. Private protected areas need to be better integrated into the broader conservation debate;

- ✓ Shell has supported efforts to improve management effectiveness of protected areas and, in particular, business planning for protected areas. Shell has assisted a number of natural World heritage Sites to develop Business plans which have helped to develop the skills of protected area managers and also to tap into the expertise available within Shell to assist in this area;

- ✓ Other opportunities for linking work on the category system and protected areas with the private sector included: (a) the use of biodiversity offsets to support protected areas; (b) experience of the private sector with scenario planning exercises; (c) the interest of certain sections of the

private sector in relation to certification – which provides a logical link to the category system; and (d) carbon funds, which may offer additional sources of funding for protected areas

Working Group 3: Working with local communities and other local partners to improve the application of the category system
Key issues were noted as:

- ✓ Local communities and indigenous peoples must be more effectively involved in protected area management; particularly in the initial development of management objectives for protected areas and also in implementing management activities and programs. The Summit noted many examples of effective Community Conserved Areas where local communities and indigenous peoples are managing protected areas, including from Australia, in relation to their indigenous protected areas program; from Kenya where tourism revenue is increasingly benefiting local communities;

- ✓ Participants noted and endorsed the requirements from the Durban World Parks Congress for prior and informed consent of protected areas by local communities and indigenous peoples;

- ✓ Local communities should be involved in the assignment of the protected area category and the development of appropriate activities and uses within each category. Participants noted that this should add to the utility and value of the category system as a credible international standard; and

- ✓ Opportunities for local communities to benefit from the category system and the certification of protected areas were noted by participants. These included the support from the Austrian Federal Government for independent assessment of protected areas as category II: National Park areas, and also the emerging opportunities for protected areas from carbon funds and biodiversity offsets.

Field Trip

A field visit was conducted to the Cabo de Gaia-Niar National Park on Wednesday 9 May. This highlighted field experience in the use of different categories in this area, with particular reference to management implications the involvement of local communities.

Applying the category system in different biomes and at a landscape scale

Four workshop sessions assessed the application of the category system in different biomes and at a landscape scale; results are outlined below.

Working Group 1: Applying the IUCN category system in the marine environment
Key issues were noted as:

- ✓ The background paper for the application of the category system to the Marine Environment identified a range of inputs and advice on the application of the category system in the marine environment and also identified 13 key questions that need to be addressed;

- ✓ Any revision of the definition of a protected area must make reference to and accommodate the marine environment. It was noted that the existing IUCN protected area definition refers to "areas of land and/or sea" and that a similar reference is not included in the proposed revision of the proposed definition (refer Section A of this report);

- ✓ The revised guidelines on the category system need to fully address and embrace the marine environment. In particular there is a need to: (a) mainstream 'marine' into the guidelines, such that there is one set of IUCN categories guidance for terrestrial and marine protected areas; (b) develop supplemental amplification for marine protected areas, with case study examples, which could be included as an Annex within the category publication; (c) ensure the revised guidance allows for a consistent approach to protected areas category assignment on land and sea;

- ✓ Participants noted that the existing six categories system "works" for the marine environment and should not be changed. However, conflicting objectives for overlapping MPAs is an issue that needs to be addressed, particularly in relation to zonation of MPAs. The existing system of number and names for categories needs to be retained, although it was suggested that the names used should "resonate" with marine practitioners;

- ✓ Marine Protected Areas should not be seen in isolation and this should be considered in the context of Marine Spatial Planning and Multiple-use zoning. Zoning within existing categories

needs to be provided in the case of large MPAs and it was noted that this can be accommodated within the new WDPA model. Vertical zoning needs to be addressed, both below and above the water surface. The issue of temporal closures of parts of MPAs for fishing should also be considered in applying the category system; and

- ✓ Minimum standards should be identified for Marine Protected Areas, particularly in relation to recreational angling/fishing; allowable impacts from commercial activities, including commercial fishing; trawling and off shore exploration and mining.

Working Group 2: Applying the IUCN category system in Freshwater Ecosystems
Key issues were noted as:

- ✓ Many protected areas protect freshwater ecosystems, however the boundaries of these ecosystems often cover more extensive areas which include river basins and freshwater catchment areas. Thus the category system does not apply to all freshwater ecosystems but the subset that meets the definition of a protected area. The specific implication for freshwater protected areas is that they need to be considered in the context of the whole ecosystem and not considered in isolation. It is particularly important to protect water sources (i.e. upper catchment), to maintain the integrity of freshwater ecosystems;

- ✓ Assessments from the IUCN 2003 World Parks Congress underlined that freshwater ecosystems are currently underrepresented in current protected area systems – often they represent the "canary in the coal mine" to enable us to assess if ecosystems are healthy;

- ✓ Ramsar sites often fall within category II and afford an extra level of protection for freshwater ecosystems which are so designated. Ramsar sites should only receive this label if they are effectively protected, with a clear protection status;

- ✓ Introduced alien invasive species are a particular problem in relation to freshwater ecosystems and these need to be addressed as a key element of improving the management effectiveness of freshwater protected areas;

- ✓ It is important to consider the multiple dimensions of protection. Freshwater ecosystems should be viewed in 3 rather than 2 dimensions, involving consideration of the underlying substrate – the soil – and the air above the protected area;

- ✓ Transboundary considerations in relation to freshwater protected areas should also be considered as freshwater ecosystems often cover more than one country. There needs to be consistent application of the category system, in relation to issues such as category definition;

- ✓ The revised category system should include specific objectives relevant to the management of freshwater ecosystems. This should include issues such as restoration and invasive species;

- ✓ The emerging matrix for the application of the category system – which is including factors such as Governance - should also consider adding a component relating to the economic and social benefits that flow from ecosystem services; and

- ✓ WCPA should establish a Task Force on freshwater protected areas and this should take a lead on the further development and refinement of the category system, in a similar way to the way in which the WCPA Marine Program is supporting the development of the category system in the marine environment.

Working Group 3: Applying the IUCN category system in Forest Ecosystems
Key issues were noted as:

- ✓ It is important for IUCN to clearly define the term "forest protected area" and to define the limits in terms of what is acceptable or not within these areas. The need for clear definitions particularly applies to the application of the category system to category V and VI protected areas and also in relation to the status of managed forests. Participants noted the need to be cautious and to maintain the focus of all protected areas on biodiversity conservation;

- ✓ The guidelines on category V and VI in relation to forest protected areas need elaboration. Participants agreed that category VI in particular should be managed for conservation as the main objective and that plantation forestry is not appropriate; and

- ✓ Verification of forest protected areas is important and could link with the overall work on certification by the Forests Stewardship Council.

Working Group 4: Species conservation and connectivity and the IUCN category system
Key issues were noted as:

- ✓ The category system should be better used as a tool for species conservation and conservation at a landscape level. It is important to better integrate species and protected areas within conservation planning: at present the linkages are not as clear or explicit as they should be. A key area of intersection is in relation to site selection of new protected areas, with new protected areas better focused on addressing species that are threatened or at risk;

- ✓ A number of specific issues were raised in relation to protected areas and species conservation, including: (a) guidelines for the management of specific categories should include species conservation guidance; (b) there should be scope for dealing with specific species conservation issues, such as invasive species, within the revised categories system; (c) protected areas should maintain their primary focus on biodiversity conservation and the protected area system in each country should cover all key elements of biodiversity; the need for different approaches to species conservation in the terrestrial and the marine environment was noted;

- ✓ Participants noted the need to address species conservation across the whole of the landscape and that this is related to the need for effective governance across the landscape. This also relates to transboundary governance for issues such as the protection of migratory species. It was emphasized that protected areas are not enough by themselves to achieve conservation outcomes and that planning for protected areas must be linked with other land uses within the landscape; and

- ✓ The need to strengthen the effectiveness of protected areas was noted as essential for improving species conservation efforts at all levels. These efforts should address threats coming from within and from outside protected areas. The assessment of management effectiveness should examine species conservation outcomes across the whole of the protected area system and ecological functioning should be considered as part of effectiveness.

Next Steps and Conclusions

The following actions were noted after the Categories Summit

- ✓ Draft of revised Categories Guidelines to be prepared by end August 2007 (draft 1)
- ✓ Draft 1 of revised Categories Guidelines to be discussed at the WCPA Steering Croup in September 2007
- ✓ 8 weeks consultation and an E-forum on content within the WCPA Steering Committee on draft 1
- ✓ revised Draft (draft 2) revised by January 2008
- ✓ Draft 2 to be placed on the IUCN web site for comment by February 2008
- ✓ Field testing in selected countries early 2008
- ✓ Refinement mid 2008
- ✓ Development of IUCN language versions mid 2008
- ✓ Final categories document to be published and launched at the Barcelona IUCN WCC - September 2008
- ✓ Implementation Strategy to be also developed by November 2008

Conclusions

Participants noted that the Summit had been very useful in clarifying a number of issues regarding the category system and that the many workshop and plenary sessions had provided very useful material for finalizing the Guidelines. Sincere appreciation was expressed to the Junta de Andalucia, the Fundacion Biodiversidad and the Ministry of the Environment of Spain for their support in making this Summit a reality.

Minutes compiled by David Sheppard

Appendix 1: Protocols for translation

Nigel Dudley

Some of the problems with application of the 1994 IUCN category guidelines arose because users simply misunderstood them, either because they were reading them in a second or third language or because local translations were inaccurate. It would be unfair to lay the blame for this on the translators. The political challenges faced by those trying to reach agreement on the IUCN categories meant that some of the wording was quite ambivalent even in the original English and this led to misunderstandings and misinterpretation, frequently compounded during the translation process into other languages. Creating a stronger framework for translations was identified as a major recommendation in the *Speaking a Common Language* report.

IUCN is committed to providing translations of the new guidance, at least in summary form, into many more languages than in the past and also to clarifying terminology and interpretation within the three "core" IUCN languages of English, Spanish and French. In order to ensure that translations are of the highest quality, the following protocols for translation are proposed.

Clarifying text in the original language
The most important part of the protocol relates to the original wording, which will be in English. If this is as clear as possible, it will give translators the tools they need to do a good job. Three elements are suggested:

- ✓ **Glossary**: provision of a clear and un-ambiguous glossary of all key technical terms used in the document – this means that such terms must be applied in the same way to all the categories and throughout the guidelines.

- ✓ **Clarification of key phrases**: currently critical aspects of the IUCN category guidelines rely on single-sentence definitions (including the IUCN definition of a protected area). In the next edition of the guidelines such phrases should where necessary be clarified by accompanying text and in some cases principles; these will also help translators in understanding the deeper meaning behind the words.

- ✓ **Summary texts**: translation is expensive. The next issue of the guidelines will include an

  appendix giving a succinct and carefully worded summary of the key aspects of using the categories, which will provide a simple template for translation. It is hoped that regional IUCN offices will be able to give help in translation, sometimes directly doing this internally.

Ensuring high quality translations
Inaccurate translations can throw the whole process of using the categories into disarray – this happened on some occasions with the 1994 guidelines. Highly competent technical translators should be used and the following safeguards included:

- ✓ **Checking translations**: highly technical, nuanced documents create particular challenges to translators. Therefore all translations of any aspects of the category guidelines should be checked by technical staff members who speak the language in question.

- ✓ **Back-up**: many readers of translated guidelines will also be more or less fluent in English (or at least there will be people working in the same institution who are). It is therefore suggested that any translated version also contains at least the summary text in English, so that particular issues can be checked against the original if questions arise.

Appendix 2: Summit agenda

DAY 1: MONDAY 7 MAY

Introductory Session: Chair: Nik Lopoukhine, WCPA Chair

9:00-10:00 **Introduction: Setting the Context**

- ✓ Junta de Andalusia. **Miss Fuensanta Coves Botella**, Regional Councillor for the Environment, Consejería de Medio Ambiente de la Junta de Andalucía: formal introduction to the workshop and its importance in the context of Andalusia's System of Protected Areas
- ✓ **Antonio Serrano**, Secretary General for Territory and Biodiversity, Ministry of the Environment of Spain: importance of the Summit in the context of IUCN cooperation with Spain on environmental issues and Spain's commitments to biodiversity conservation
- ✓ **Julia Marton-Lefèvre**, IUCN Director General: IUCN's role in protected areas and the categories
- ✓ **Nik Lopoukhine**, WCPA Chair: international application of the categories, with reference to the CBD
- ✓ **Peter Bridgewater,** Secretary General, Ramsar Convention: the categories and Ramsar

10:00-11:00 **Historical background and aims of the summit** (Talks and plenary discussion)

- ✓ **Kenton Miller,** WCPA Chair Emeritus: history of the IUCN protected area category system.
- ✓ **David Sheppard,** Head IUCN Programme on Protected Areas: introduction to the aims of the Summit

Plenary discussion on the IUCN definition of a protected area and proposals for categories: Chair: Marc Hockings, WCPA Vice Chair Science and Management

11:30-12:30

- ✓ **Nigel Dudley**: IUCN definition of a protected area and the IUCN categories, choices needed.
- ✓ **Harvey Locke**: are all the categories equal? - Critique of categories V and VI.
- ✓ **Josep Maria Mallarach**: the importance of applying all the categories.

12:30-14:00 Plenary Panel Discussion

Facilitated plenary discussion by **Marc Hockings** with panellists on different categories; panelists will give a 2-3 minute statement followed by plenary discussion. Panellists will include: **Cyril Kormos** (category Ia); **Kent Redford** (category Ib); **Craig Groves** (category II); **Nigel Dudley** (category III); **Grazia Borrini-Feyerabend** (category IV); **Jessica Brown** (category V); **Claudio Maretti** (category VI)

15:30-17:00 **Workshop Session 1: National and Regional Experience with the categories system**

Nigel Dudley: Introduction and explanation of the workshop session (5 minutes). Three Workshops will explore perspectives from around the world for the three IUCN languages. In each session speakers who will give short presentations, followed by discussion. Each workshop is asked to identify: "*What are the key lessons from application of the IUCN category system in their country/region".*

- ✓ **Session 1: French**: Chair: **Christian Barthod**, Sous Directeur des Espaces Naturels, Direction de la Nature et des Paysages, Ministère de l'Ecologie et du Développement Durable, France: presentations from Algeria, France, Madagascar, Tunisia, etc. followed by discussion
- ✓ **Session 2: Spanish**: Chair : **Rosario Pintos Martín**, Directora General de la Red de Espacios Naturales Protegidos de Andalucía y Servicios Ambientales. Consejeria de Medio Ambiente, Junta de Andalucía, Spain: presentations from Bolivia, Cuba, Italy, Mexico, Peru, Spain etc with discussion.
- ✓ **Session 3: English**: Chair : **Roger Crofts**, WCPA Regional Vice Chair for Europe: presentations from Australia, Canada, Iran, Kenya/East Africa, Korea, Norway, Serbia, Turkey, Uganda etc with discussion.

17:30-19:00 **Workshop Session 2: Experiences with the Application of Specific Categories**

Nigel Dudley. Introduction and explanation of the Workshop Session 2 (5 minutes). Subgroups will discuss experiences with the application of the categories. Each workshop session is asked to identify*: (1) How adequate are these categories in guiding protected area planning and management? What needs to be changed and improved? ; (2) How can these*

categories be better promoted and applied in policy, in national legislation, and at other levels ?; and (3) How can the process for assigning these categories be improved ?
1: **Categories I and II**: Chair: **Miguel Castro-Viejo Bolivar**, Permanent Rep. of Spain to the EU.
2: **Categories III and IV**: Chair: **Tom Brookes,** Conservation International
3: **Categories V and VI**: Chair: **Rosario Pintos Martín**, Directora General de la Red de Espacios Naturales Protegidos de Andalucía y Servicios Ambientales, Consejería de Medio Ambiente

DAY 2: TUESDAY 8 MAY

9:00-11:00 **Reporting Back from Day 1**
Plenary session reporting back from the workshop sessions of Day 1: 10 minute presentations by one person from each session to report back from Workshop Session 1 and Workshop Session 2
Chair: **Miguel Castro-Viejo Bolivar**, Permanent Representative of Spain to the EU.

11:30-14:00 **Workshop Session 3: Improving the application of the category system**

Nigel Dudley: Introduction and explanation of the workshop session (5 minutes). Four workshop sessions will assess different aspects of the application of the category system and will address specific issues.
1: **How can we improve the process of assignment of protected areas to categories**? Chair: José Antonio Atauri, EUROPARC-Spain. Key Question: *How can the process of assignment of protected areas to categories be improved?* (Aspects such as: principles for assignment, consultation, addressing complaints)
2: **Data Collection and Management**, Chair: **Charles Besancon**, Head Protected Areas Programme, UNEP-WCMC. Key Question: *How can the application of the category system within the World Database on Protected Areas be improved?* (Steps to improve recording and reporting, regionalisation of data collection and data/information use for a variety of objectives (research projects; extractive industry's objectives, EIA; etc)
3: **Governance of protected areas and the category system**: Chair: **Grazia Borrini-Feyerabend**, WCPA Co-Vice Chair, Governance, Equity and Livelihoods. Key Question: *How can different protected area Governance models be best integrated within the IUCN category system?* (Aspects such as Accommodating information on Community Conserved Areas, private protected areas, sacred sites)
4: **Guaranteeing categories and improving protected area Management Effectiveness**: Chair: **Marc Hockings,** WCPA Vice Chair Science and Management**.** Key Question: *How can the category system accommodate information on Management Effectiveness?* (Aspects such as Legal and institutional issues, management effectiveness, discussion on options for certification etc).

15:30-17:00 **Workshop Session 4: Working with Partners to improve the IUCN category system**

Nigel Dudley. Introduction and explanation of the workshop session (5 minutes). Three workshop sessions will assess partnerships with different partners (organizations and groups) to ensure better application of the category system. Each Session will be asked to address specific issues
1: **Working with the International Conventions and Agreements to improve the application of the category system**: Chair: **Mayte Martín Crespo**, Ministry of the Environment of Spain. Key Question: *How can the category system be better linked with and applied within International Conventions and Agreements?* (Application within Conventions and Agreements such as the CBD, Ramsar Convention, World Heritage Convention, Man and the Biosphere Reserve Programme etc).
2: **Working with the Private Sector to improve the application of the category system**. Chair: **Nik Lopoukhine,** WCPA Chair. Key Question: *How can the Private Sector be more effectively involved with the IUCN category system?* (Key issues and challenges of working with the private sector, opportunities for private sector support for the application of the category system and for protected areas in general)
3: **Working with local communities and other local partners to improve the application of the category system**. Chair: **Juan José Luque Ibañez.** Delegado Provincial de la Consejería de Medio Ambiente de la Junta de Andalucía en Almería. Key Question: *How can local communities, indigenous peoples and other local partners be better involved and engaged with the IUCN category system?* (Approaches to involving local communities in the identification of categories and the development of management strategies etc)

17:30-18:50 **Reporting Back from Day 2**

Plenary session reporting back from the workshop sessions of Day 2. There will be presentations (10 minutes each) by one person from each session (7) to report back from Workshop Session 3 (improving the application of the category system) and from Workshop Session 4 (improving partnerships). Chair: **Gonzalo Oviedo**, IUCN Head of Social Policy

DAY 3: WEDNESDAY 9 MAY – FIELD TRIP
Field Visit to Cabo de Gaia-Niar National Park – Technical session to highlight the use of different categories in this area, their management and implications for local communities.

DAY 4: THURSDAY 10 MAY

8:30-10:30 **Plenary Panel session**
Summary of progress over the previous two days – an overview addressing the key questions, outlining where we have consensus and where there are further questions. Chair: **David Sheppard**, Head IUCN Programme on Protected Areas, resenation of key questions by **Nigel Dudley**, with a Panel of **Kenton Miller,** WCPA Chair Emeritus, **Ernesto Enkerlin Hoeflich**, Presidente Comision Nacional de Areas Naturales Protegidas, Mexico, and **José Courrau**, The Nature Conservancy, Costa Rica

10:00-13:00 **Workshop Session 5: Applying the category system in different biomes and at a landscape scale**

Nigel Dudley. Introduction and explanation of the workshop session (5 minutes).
Four workshop sessions will assess the application of the category system in different biomes partnerships and at a landscape scale. Each Session will be asked to address specific issues.

1: **Applying the IUCN category system in the marine environment**: Chair: **Dan Laffoley**, WCPA Vice Chair, Marine. Key Question: *How can the category system be better applied in the marine environment and how can marine specific issues be addressed?* (What should be included in guidance for applying the categories in the marine environment, how to deal with marine specific issues such as vertical zonation, etc)
2: **Applying the IUCN category system in Freshwater Ecosystems**: Chair: **Peter Bridgewater**, Ramsar Secretary General. Key Question: *How can the category system be better applied in freshwater ecosystems* (What should be included in guidance for applying the categories in freshwater ecosystems, how do we increase attention for freshwater within the different categories)
3: **Applying the IUCN category system in Forest Ecosystems**. Chair: **José Guirado Romero**, Director General de Gestión del Medio Natural. Consejería de Medio Ambiente. Junta de Andalucia. Key Question: *How can the category system be better applied in forest ecosystems?* (Addressing problems with the categories in forests and asking whether these have been addressed – interventions from COST and others)
4: **Species conservation and connectivity and the IUCN category system**: Chair: **Holly Dublin**, Chair, IUCN Species Survival Commission. Key Question: *How can the category system be used as a more effective tool to enhance species conservation and better conservation at a landscape level?* (covering: Role of zoning, role of different categories within the mosaic, areas outside protected area networks, corridors)

13:00-14:00 **Plenary session. Reporting Back from Day 3:** Chair: **Cristina Narbona**, Ministry of the Environment, Spain. Presentations from each session to report back from Workshop Session 5
15:00-16:00 **Plenary: Where do we go from here?** Chair: **Nigel Dudley**
Outline of what will hopefully be an emerging consensus; proposed process for revising the guidance to the categories, with a Panel of **Kenton Miller**, **Ernesto Enkerlin Hoeflich**, and **José Courrau**
16:00-16:30 **Final plenary: Nik Lopoukhine** and **David Sheppard**
16:30-16:45 **Representative from the Government of Andalusia**: Official closing of the meeting
16:45-17:00 **María Artola**, Director, Fundacíon Biodiversidad, Spain: Official closing of the meeting

DAY 5: FRIDAY 11 MAY – FIELD TRIP
Field Visit to Sierra Nevada National Park

Appendix 3: Participants at the Categories Summit

The list below is of participants who attended the Summit. We apologise to any attendees not mentioned, or who are mentioned and did not attend; and apologies for any misspellings or incorrect information regarding names and affiliations.

Tarek Abulhawa, IUCN WESCANA Regional Office, Jordan
Andrés Alcantara, IUCN Centre for Mediterranean Cooperation, Spain
Germán Andrade, Fundación Humedales, Colombia
Fatima Andrade, Consejeria de Medio Ambiente Junta de Andalucia, Spain
Alexandru Andrasanu, University of Bucarest, Romania
Suade Arancli, Ministry of Environment and Foresty, Turkey
María Artola Gonzalez, Fundación Biodiversidad, Spain
Margarita Astrálaga, IUCN Centre for Mediterranean Cooperation, Spain
José Antonio Atauri, EUROPARC-Spain, Spain
James Barborak, Conservation International, Costa Rica
Brad Barr, NOAA`s National Marine Sanctuary Program, USA
Christian Barthod, Ministère de l`écologie et du développement durable, France
Louis Bélanger, Université Laval, Canada
Charles Besancon, United Nations Environment Programme World Conservation Monitoring Centre, United Kingdom
Bernhard (Ben) Böer, University of Ottawa, Canada
Grazia Borrini-Feyerabend, IUCN WCPA/CEESP, Switzerland
Peter Bridgewater, The Ramsar Convention on Wetlands, Switzerland
Thomas Brooks, Conservation International, USA
Jessica Brown, QLF/Atlantic Centre for the Environment, USA
Malgorzata Buszko-Briggs, MCPFE Liaison Unit Warsaw, Poland
Susana Calvo Roy, Ministerio de Medio Ambiente, Spain
Sonia Castañeda, Fundación Biodiversidad, Spain
Carles Castell Puig, Oficina Técnica de Planificación y Análisis Territorial, Spain
Hermelindo Castro Nogueira, Instituto Andaluz del Agua, Spain
Miguel Castroviejo, Bolivar Representation Permanente d`Espagne auprés l`U.E., Belgium
Peter Cochrane, Parks Australia, Australia
Peter Coombes, Anglo American, South Africa
José Courrau, The Nature Conservancy, Costa Rica
Botella Coves, Consejería de Medio Ambiente, Junta de Andalucia, Spain
Eduardo Crespo, Agencia Española de Cooperación Internacional, Spain
Roger Crofts, WCPA Europe, United Kingdom
Bamba Diop, African Development Bank, Tunisia
Marti Domènech i Montagut, Area d`Espais Naturals Diputació de Barcelona, Spain
Marc Dourojeanni, Brazil
Holly Dublin, South African National Biodiversity Institute, South Africa
Nigel Dudley, Equilibrium Research, United Kingdom
Manuel Durban, Ministerio de medio Ambiente, Spain
Abdellah El Mastour, Royaume du Maroc Département des Eaux et Forêts et de la lutte contre la Désertification, Morocco
Ernesto Enkerlin Hoeflich, Comisión Nacional de Áreas Naturales Protegidas (CONANP), Mexico
Reinaldo Estrada Ministerio de Ciencia, Tecnología y Medio Ambiente, Cuba
Jordi Falgarona-Bosch, Generalitat de Catalunya, Spain
Antonio Fernández de Tejada González, Ministerio de Medio Ambiente, Spain
Georg Frank, Federal Research and Training Centre for Forests, Austria
Roberto Gambino, Dipartimento Interateneo Territorio Politecnico e Università di Torino, Italy
Javier Garat, Spanish Federation of Fisheries Organisations, Spain
Sarah Gindre, IUCN - The World Conservation, Switzerland
Craig Groves, Wildlife Conservation Society, USA
José Guirado, Consejera de Medio Ambiente, Spain
Manuel Francisco Gutiérrez, Conselleria de Medio Ambiente e Desenvolvemento Sostible, Spain
Heo Hag-Young, Korea National Park Institute, Korea (RK)
Marc Hockings, IUCN WCPA, Australia
Rolf Hogan, WWF International, Switzerland
Bruce Jefferies, Conservation Management & Planning Systems, New Zealand
José Jimenez García-Herrera, Agencia Española de Cooperación Internacional, Spain
Ali Kaka, East African WildLife Society, Kenya
Sachin Kapila, Royal Dutch Shell, United Kingdom
Hyun Kim, Korea National Park Service, Korea (RK)
Seong-Il Kim, Seoul National University, Korea (RK)
Cyril Kormos, The WILD Foundation, USA
Meike Kretschmar, Federal Agency for Nature Conservation, Germany
Zoltan Kun, Pan Parks Foundation, Hungary
Dan Laffoley, English Nature, United Kingdom
Kari Lahti, IUCN - The World Conservation Union, Switzerland

Maximo Liberman Cruz, Servicio Nacional de Areas Protegidas SERNAP, Bolivia
Harvey Locke, Canadian Parks and Wilderness Society, Canada
Axel Loehken, Sustainable Agriculture Initiative (SAI) Platform, Belgium
Arturo López, Ornat/PANGEA, Spain
Elena López de Montenegro, RENPA, Spain
Nikita Lopoukhine, IUCN-WCPA, c/o Parks Canada - Parcs Canada, Canada
Ibañez Luque, Consejera de Medio Ambiente Junta de Andalucia, Spain
Maher Mahjoub, Ministère de l`Environnement et du Développement durable, Tunisia
Josep Maria Mallarach, Spain
Moses Mapesa, Uganda Wildlife Authority, Uganda
Cláudio Maretti, WWF-Brasil, Brazil
Vance Martin, The WILD Foundation, USA
María Teresa Martín Crespo, Ministerio de Medio Ambiente-Comité Español de la UICN, Spain
Carole Martinez, UICN Comité français, France
Baldomero Martínez, EGMASA, Spain
Julia Marton-Lefèvre, IUCN - The World Conservation Union, Switzerland
Mehrasa Mehrdadi, Department of the Environment, Iran
Rosa Mendoza Castellón, Parque Natural Cabo de Gata-Níjar, Spain
Susan Miller, IUCN WCPA, USA
Kenton Miller, IUCN WCPA, USA
Fernando Molina Vázquez, Consejería de Medio Ambiente, Spain
Sophie Moreau, IUCN Centre for Mediterranean Cooperation, Spain
Gérard Moulinas, Fédération des parcs naturels régionaux de France, France
Marta Múgica de la Guerra, EUROPARC-Spain, Spain
Eduard Müller, Universidad para la Cooperación Internacional, Costa Rica
Andreas Müseler, REWE Touristik, Germany
Olav Nord-Varhaug, Directorate for Nature Management, Norway
Juan Carlos Orella, Ministerio de Medio Ambiente, Spain
Gonzalo Oviedo, IUCN - The World Conservation Union, Switzerland
Ana Pena, Federparchi (Federazione Italiana dei Parchi e delle Riserve Naturali), Spain
Milagros Pérez Villalba, Consejera de Medio Ambiente Junta de Andalucia, Spain
Christine Pergent-Martini, RACISPA, Tunisia
M. Rosario Pintos Martin, Consejería de Medio Ambiente, Junta de Andalucia, Spain
Anabelle Plantilla, Haribon Foundation for the Conservation of Natural Resources, Philippines
Francisco Quiros, Consejera de Medio Ambiente, Spain
Mohammad Rafiq, IUCN - The World Conservation Union, Switzerland
Anitry Ny Aina Ratsifandrihamanana, World Wide Fund for Nature, Madagascar
Kent H. Redford, The Wildlife Conservation Society, USA
Manuel Rendon Martos, Reserva Natural Laguna de Fuente de Piedra, Spain
Robbie Robinson, IUCN WCPA, South Africa
Emilio Rodriguez, Ministerio de Medio Ambiente, Colombia
Manuel Rodriguez de Los Santos, RENPA, Spain
Pedro Rosabal Gonzalez, IUCN - The World Conservation Union, Switzerland
Juan Carlos Rubio García, Paraje Natural Marismas del Odiel, Spain
Alberto Salas Avila, UICN ORMA, Costa Rica
Franciscoj Sanchez, Espacio Natural Sierra Nevada, Spain
Ana Elena Sánchez de Dios, EGMASA, Spain
José Luis Sánchez Morales, Parque Natural Sierras de de Cazora, Segura y Las Villas, Spain
Mohamed Seghir Melouhi, Direction Générale des Forêts, Algeria
Antonio Serrano, Ministerio de Medio Ambiente, Spain
Peter Shadie, IUCN - The World Conservation Union, Thailand
David Sheppard, IUCN - The World Conservation Union, Switzerland
Sue Stolton, Equilibrium Research, United Kingdom
Gustavo Suárez de Freitas, Peru
Daniela Talamo, Federparchi (Federazione Italiana dei Parchi e delle Riserve Naturali), Italy
Tony Turner, Geo Connections, Canada
Rauno Väisänen, Metsähallitus Natural Heritage Services, Finland
Tafe Veselaj, Agency of Environment, Serbia
Nestor Windevoxhel Lora, PROARCA/APM, Guatemala
Stephen Woodley, Parks Canada, Canada

Appendix 4: Notes on authors

The following notes give brief biographical details about the people who wrote the papers included in this volume.

Robin Abell is a member of the IUCN WCPA freshwaters task force and works for the WWF-US Conservation Science Programme on freshwater conservation issues.

José-Antonio Atauri is a member of the IUCN WCPA landscapes task force and works for Europarc in Spain.

Brad Barr is a member of the IUCN WCPA marine task force and is at the National Oceanic and Atmospheric Administration in the United States.

Charles Besancon is a member of the IUCN WCPA transboundary protected areas task force and is director of the protected areas programme at the UNEP World Conservation Monitoring Centre in Cambridge, UK.

Harry Biggs is chair of the WCPA Freshwaters Task Force and works at the Kruger National Park in South Africa.

Luigi Boitani is on the steering committee of the IUCN Species Survival Commission and works at the University of Rome, Rome, Italy.

Grazia Borrini-Feyerabend is co-chair of the WCPA/CEESP Theme on Indigenous and Local Communities, Equity and Protected Areas and is a consultant based in Switzerland.

Jessica Brown is chair of the IUCN WCPA landscapes task force and works for the Quebec-Labrador Foundation.

Neil Burgess is a member of the IUCN WCPA categories task force and works for the UNEP World Conservation Monitoring Centre and the WWF Conservation Science Programme.

José Courrau works for the protected areas programme of The Nature Conservancy, based in San José, Costa Rica.

Roger Crofts is IUCN WCPA vice-chair for Europe and an inspector for the Pan Parks Foundation, based in Scotland, UK.

Nick Davidson is deputy director of the Ramsar Bureau in Gland, Switzerland.

Jon Day is a member of the IUCN WCPA marine task force and works for the Great Barrier Reef Marine Park Authority in Queensland Australia.

Nigel Dudley is chair of the IUCN WCPA task force on protected area categories and is a consultant based in the UK.

Charlie Falzon is a consultant based in Wales, UK.

Lucy Fish works for the UNEP World Conservation Monitoring Centre in Cambridge, UK.

Peter Frost is a member of the WCPA Cities Task Force and works for the Countryside Council of Wales, UK.

Craig Groves is North America vice chair for the IUCN Commission on Ecosystem Management and works for The Nature Conservancy based in Montana.

Dave Harmon is IUCN WCPA vice-chair for North America and is director of the George Wright Foundation

Marc Hockings is chair of the Science Theme for IUCN WCPA and teaches at the University of Queensland.

Dan Laffoley is IUCN WCPA vice-chair for marine issues, based at Natural England in the UK.

Cyril Kormos is a member of the IUCN WCPA Wilderness Task Force and is vice president for policy at the WILD Foundation, based in California.

Ashish Kothari is co-chair of the WCPA/CEESP Theme on Indigenous and Local Communities, Equity and Protected Areas and a member of Kalpavriksh in Pune, India.

Kari Lahti is director of Oulanka National Park in Finland and was on secondment to IUCN in Gland, Switzerland, working on the categories summit.

Nik Lopoukhine is chair of IUCN WCPA and former director of Parks Canada, based in Ottawa.

Josep-Maria Malarach is a consultant based in Catalonia, Spain and co-chair of the Delos Initiative on sacred sites and protected areas.

Stephanie Mansourian is a consultant based near Geneva, Switzerland.

Claudio Maretti is chair of the IUCN WCPA Category VI task force and conservation director for WWF Brazil.

Brent Mitchell is chair of the WCPA Task Force on private protected areas and works at the Quebec Labrador Foundation.

Kenton Miller is a former chair of WCPA and former director of the World Resources Institute.

John Morrison is director of conservation measures at the Conservation Science Programme at WWF US based in Washington DC.

Gonzalo Oviedo is head of social policy at IUCN in Gland, Switzerland.

Jeff Parrish is a member of the IUCN WCPA categories task force and works for The Nature Conservancy in the Mediterranean programme, based in Denver Colorado.

Andrew Parsons was formerly director of the International Council on Metals and Mining and now works for the mining industry in South Africa.

Marc Patry works for the UNESCO World Heritage Centre in Paris.

Adrian Phillips was chair of the World Commission on Protected Areas (WCPA) from 1994-2000; he now works with several conservation NGOs in the UK.

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David Sheppard is head of the Programme on Protected Areas at IUCN in Gland, Switzerland

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Bob Wishitemi is a member of the IUCN WCPA landscape task force and Vice Dean at Moi University, Nairobi.

Louisa Wood is a member of the IUCN-WCPA marine task force and is carrying out research at the University of British Columbia.

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