

Why is Biodiversity Conservation Important in Protected Landscapes?

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OVER THE PAST FEW YEARS, THE FUNCTION, PURPOSE, AND EVEN LEGITIMACY of protected landscapes and seascapes has been the subject of a surprisingly intense debate. Protected landscapes are not natural or near-natural ecosystems, such as rainforests or mangrove swamps, but areas that have been culturally defined by human management, often over periods of hundreds or thousands of years, which retain and often develop important natural, aesthetic, spiritual, and cultural values. IUCN (the International Union for the Conservation of Nature) sums them up as places “where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value” (Dudley 2008).

On the one hand, more and more countries are designating protected landscapes (defined by IUCN as protected area category V, see below) and promoting these as major contributions to national conservation strategies. But this success has resulted in a background grumbling of concern about the efficacy of the approach, culminating in an influential paper (Locke and Dearden 2005), which argued that designations such as protected landscapes or extractive reserves (IUCN category VI) have little to do with biodiversity conservation and, whatever their other values, such places should no longer be recognized as “protected areas.” Perhaps even more significantly, many conservation planners and non-governmental organizations (NGOs) tacitly ignore such designations in national or ecoregional conservation plans, protected area gap analyses, or land purchase strategies, and over time this perception has been taken up by a number of governments.

The criticism leveled at the less-restrictive protected area approaches was quite specific. It was not questioning the legitimacy of landscape protection approaches, nor denying the importance of cultural landscapes and broad-scale approaches, but was challenging the potential of such places to contribute significantly to biodiversity conservation. It was not saying “get rid of them,” but rather “don’t count them too heavily in conservation strategies.” This perspective has, in turn, attracted some careful responses (see e.g. Mallarach et al., forthcoming) and a great deal of debate within international protected areas policy. The following article provides some of the background to the debate, then looks at different points of view and draws together a synthesis. Given that the issue attracts strong opinions, for transparency’s sake I will summarize my own views during the course of the article.

Who decides?

First, we need to be clear about why the debate is important. Does it matter what a few academics or NGOs think is or is not a protected area? And who decides these things anyway? Ultimately, national conservation strategies are set by governments, which are variously influenced by their voters, in the case of democracies, or at least the weight of public opinion; by advocacy groups that take many different forms, both for or against conservation; and by a range of regional or international institutions and agreements. Over time, the significance of the last of these, the various intergovernmental conservation processes, has grown increasingly important as it has become fashionable for politicians to show off their environmental credentials on the global stage. This means that the question of what “counts” as a protected area gains significance, both from the practical perspective of whether or not they perform the functions claimed for them, and more subtly for political questions relating to equity between nations. If one country gains international kudos for a system of protected areas that other countries regard as not really being protected at all, the international process is undermined and subverted.

For the last few decades, the main arbiter of what counts as a protected area has been IUCN. Its members (which include both governments and NGOs) agree collectively on both the definition of a protected area and on a range of different management approaches that are deemed acceptable within protected areas. The latter are described in a typology of six different management approaches known as the IUCN protected area categories. While application of categories is voluntary, most of the world’s governments accept and apply them, with an increasing number formalizing them in law (Dillon 2004). The IUCN protected area definition, categories, and accompanying guidance have recently been revised (Dudley 2008) from the previous 1994 edition (IUCN and WCMC 1994), following a detailed analysis coordinated by Cardiff University in Wales (Bishop et al. 2004) and a long consultation within IUCN and its members (see Dudley, forthcoming). The process of revision stimulated a sudden burst of interest in the opportunities and limitations of what is meant by the term “protected area,” particularly with respect to the broader landscape approaches to protection.

The new IUCN protected areas definition and categories

The result is not radically different from the interpretation of 1994, but it does contain some significant reinterpretations and changes of emphasis. Most important, the definition of what IUCN recognizes as a protected area has changed. In 1994 it read:

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 2008 version, after tortuous debate within the IUCN World Commission on Protected Areas (WCPA), states that a protected area is:

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

The 1994 definition could be read as meaning that “associated cultural resources” were of equal or even superior importance to “protection and maintenance of biological diversity” and some IUCN members interpreted it in this way. The 2008 definition gives a clear indication that “nature conservation” is given higher significance than “associated ecosystem services and cultural values.” More important still, the definition is accompanied by a series of principles, the most relevant in the current context being: “for IUCN, only those areas where the main objective is conserving nature can be considered protected areas; this can include many areas with other goals as well, at the same level, but in the case of conflict, nature conservation will be the priority.” In other words, when the chips are down nature conservation should have priority in protected areas. This was not always the case before; guidance in 1994 stated explicitly that conservation of biological diversity was secondary to wilderness conservation in wilderness areas and secondary to protection of specific cultural/natural features, recreation and tourism, and maintenance of cultural/traditional attributes in protected landscapes.

On the other hand, the wording has changed from “biological diversity” to “nature conservation,” a broader term, which certainly embraces geological and geomorphological diversity and is also more generally open to different cultural interpretations of what constitutes “nature.” The restatement also includes greater emphasis on delivery; the 1994 definition was explicitly based on objectives rather than achievement, while the use of the phrase “*to achieve* long term conservation” (my emphasis) implies that effectiveness is included within the definition.

The six categories (one divided into two sub-categories) remain roughly the same, although there are changes in emphasis and the new guidelines go further than before in attempting to distinguish one category from another. They are summarized in Table 1.

The new guidelines were launched at the October 2008 World Conservation Congress in Barcelona, with an accompanying resolution supporting the use of all the categories for conservation. Signatories of the resolution included some of those who had earlier been arguing against categories V and VI, indicating that the new interpretation has gone a long way to quieting concerns.

Roots of the debate

The new publication provides some clarification but will certainly not end the debate; IUCN’s statements remain simply guidance and governments can and will ignore them when they wish.¹ There is no reason to expect that governments will suddenly turn round and announce that certain national designations are no longer “protected areas.” But what does seem to have occurred is a subtle shift in the underlying philosophy behind protected areas towards an increased emphasis on nature conservation.

Or more accurately, the balance of power has shifted in that direction. Two views exist

No.	Name	Description
Ia	Strict nature reserve	Strictly protected areas set aside to protect biodiversity and also possibly geological/ geomorphological features, where human visitation, use, and impacts are strictly controlled and limited to ensure protection of the conservation values.
Ib	Wilderness area	Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition
II	National park	Large natural or near-natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational, and visitor opportunities.
III	Natural monument or feature	Areas set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave, or even a living feature such as an ancient grove.
IV	Habitat/species management area	Areas that aim to protect particular species or habitats and where management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.
V	Protected landscape or seascape	An 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; and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.
VI	Protected areas with sustainable use of natural resources	Areas conserving ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level, non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

Table 1 Revised IUCN protected area categories. Source: Dudley 2008.

about protected landscapes,² both strongly held by their supporters. One is that protected landscapes should and can play a major role in biodiversity conservation strategies and the delivery of conservation targets; in other words that *all* protected areas ought to be selected and designed using the best available conservation science to maximize the amount of biodiversity that they protect. The other view is that protected areas and particularly protected landscapes have a far wider role than just the protection of biological diversity and that a narrow focus on biodiversity conservation risks losing many cultural, social, broader environmental, and spiritual values traditionally associated with protected areas. To a large extent

protected landscapes have become the battleground where these philosophical debates have been played out.

The questions go beyond academic exercises into the realms of passionate and deeply held belief. I've seen the genuine anger and frustration in many conservation biologists at what they believe to be backsliding, obfuscation, and weak tactics during the middle of a biodiversity extinction crisis. And I have been in other protected area debates where "biodiversity" is almost regarded as a dirty word, associated with an authoritarian approach of pushing people aside in favor of wild nature, without thought for the cultural and social implications of these actions. Such division, in a global movement that is already struggling to retain a voice against a host of pressures, is profoundly dangerous.

The role of protected landscapes

Unfortunately, divisions go further than just what people talk about in conferences. Different arms of government often regard protected landscapes as very different entities and management can end up confused as a result. Environment ministries tend to report them as contributing to biodiversity conservation targets, including those of the Convention on Biological Diversity's Program of Work on Protected Areas, while rural development ministries downplay their conservation role in favor of human livelihood issues. At management level, some protected landscape managers emphasize the nature conservation aspect and have addressed this carefully in management plans, while others see it as less important than maintaining landscape values, community benefits, and the traditional management systems. In fact, it was a British national park manager saying that, for him, biodiversity conservation was "irrelevant" (UK national parks are all IUCN category V) that originally lit the fuse for the Locke and Dearden polemic arguing for their delisting (Harvey Locke, pers. comm.).³

As categories V and VI grow in global importance, this confusion becomes dangerous. Category V now dominates European conservation efforts, at least in terms of area involved, with 52% of protected areas by area being so designated (Gambino 2008). If the protected landscape approach is not delivering biodiversity conservation, then many national biodiversity conservation strategies are in deep trouble. Evidence that this was the case would not destroy the importance of protected landscapes and seascapes, but it would change the way in which they are used and it might well mean that in some circumstances additional strictly protected areas (more "traditional" protected areas) would be required.

Do protected landscapes deliver biodiversity conservation?

In fact, there is good if slightly limited evidence that the category V approach can deliver biodiversity conservation, *if* it is part of a genuine and coherent conservation strategy, carefully planned, negotiated, and managed over time. Data are lacking because there have been few comprehensive studies on the effectiveness of this or indeed any other protected area management strategy, something that IUCN WCPA seeks to remedy over the coming few years. But the limited evidence is encouraging. A detailed study in Catalonia, Spain (Mallarach 2008), found that protected landscapes provided habitat even for rare species like the bear,

Iberian lynx, and wolf, and that the relatively large size of category V reserves made them more effective than small, strictly protected areas (which also had an important role for certain species). The protected landscape approach has been used successfully as the basis for species conservation strategies under the European Union's Natura 2000 network, particularly in the Mediterranean. Studies by the Royal Society for the Protection of Birds in the UK found that even in British category V protected areas, which tend to downplay biodiversity conservation, there were quantifiable benefits for wild species (Robins 2008). Evidence on the role of traditional farming methods in conservation exists in the Mediterranean region (Baldock 1995). Many individual projects link their success to a focused use of landscape approaches.

A personal perspective

I have been closely observing the categories debate for a number of years, both as a member of the team that put together the Cardiff University study and as chair of the IUCN task force that coordinated the revision of the guidelines. For obvious reasons during that process I tried to keep a neutral position while the various debates were still going on; what follows are some more personal thoughts emerging from discussions over the past five years.

Protected areas are not just about biodiversity and an over-reliance on this single factor to “sell” protection is likely to fail in the long term. Broadening the support for protected areas is a critical challenge. Over the last few years I have been centrally involved in a series of projects, together with Sue Stolton and colleagues in WWF and the World Bank, looking at broader values of protected areas, including their role in producing clean drinking water, protecting agrobiodiversity, mitigating natural disasters, providing positive health benefits, reducing poverty, alleviating the impacts of climate change, and playing a role in the spiritual lives of faiths and religions.⁴ Focusing entirely on biodiversity benefits is both inaccurate and risky, because it assumes that this single issue will be enough to persuade governments to commit huge areas of land and water for conservation. I also share frustration with a narrow biodiversity approach.

But at the same time we are in the middle of a genuine biodiversity crisis. There are many practical and ethical reasons to be profoundly concerned about the rapidly accelerating extinction rate caused by human actions. Whether or not a category V protected area really delivers biodiversity benefits usually depends on choices made by managers and other stakeholders. Given the strong and increasing emphasis on protected landscapes in many parts of the world, it would be a tragedy if these aspects of management were downplayed through lack of attention or interest, and I am also frustrated when I see what amounts to a reaction against biodiversity conservation by some managers. Climate change increases both the need and potential for an emphasis on wild nature in many category V reserves because the marginal farming systems that they support will become unviable, whereas natural systems can provide measurable environmental benefits (see, for instance, Phillips 2007). Prioritizing this in management approaches is both ethically and practically justified.

The new IUCN guidelines provide an important frame of reference for management of protected areas. Their ultimate success will depend in large part on managers recognizing

multiple benefits. This can mean a manager of a traditional category II national park including the needs of faith groups if a sacred natural site is present in the park; it can also mean a manager of a category V protected landscape increasing the emphasis on management for wild biodiversity. There will, for sure, continue to be arguments about some protected landscape approaches and whether or not they are giving enough space to wild nature. Getting the spirit of what we are doing right is more important than the minutiae of the wording in guidelines or treaties. Protected landscapes can offer huge benefits in terms of conservation of biodiversity in addition to their many other values, and it is important that those involved in their management recognize and support such approaches.

Endnotes

1. The *UN List of Protected Areas* will remain the “official” global list of protected areas and should follow the IUCN guidelines, although it remains to be seen how strictly this will be applied.
2. Note that the criticisms tend to focus on both IUCN categories V (protected landscapes) and VI (protected areas with sustainable use) and many of the debates are similar. The current article focuses on protected landscapes because the center of the debate about the legitimacy of different protected area models has been in Europe, where category V is very common and category VI has been applied only to a very limited extent.
3. It should be noted that the UK does not refer to its category V protected areas in country reports to the Convention on Biological Diversity’s Program of Work on Protected Areas, showing further signs that governments do not always speak with one voice as to their purpose.
4. Five book-length reports are available and can be downloaded from www.equilibriumresearch.com from the list of protected area publications: *Running Pure* on drinking water, *Beyond Belief* on faiths, *Food Stores* on agrobiodiversity, *Natural Security* on disaster mitigation, and *Safety Net* on poverty reduction. A report on links with health is underway and an overview book is planned for 2010.

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