

PROTECTED AREAS: challenges and responses for the coming decade

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Equilibrium RESEARCH

This is the first of a new series of dialogues from Equilibrium Research, in light of current opportunities and pressures on protected areas, building up to the revision of the Convention on Biological Diversity's biodiversity targets in 2020, the implementation of the Sustainable Development Goals and wider patterns of economic and social development. The views are those of the authors and represent no other organisation or institution.

Dialogues are not referenced for reasons of space; key sources are available on request. The ideas outlined here build on our research since our founding in 1991, and in conversations and interaction with people throughout the world. We would like to thank all those who have worked with us over the years for continuing to stimulate our thoughts and ideas. Over 200 of our publications can be found on our website:

www.equilibriumresearch.com, as well as through a wide range of other information sites, including ResearchGate.

Please feel free to widely circulate this dialogue, we are happy for any ideas it contains to be reused, but please do reference the source as:

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Introduction: protected areas in the coming decade

The global protected area network has undergone an unprecedented rate of expansion over the last few decades; one of the largest and fastest changes of land-use in history. But this is only part of the story. Biodiversity continues to decline: evidence shows that losses are slowed by protected areas, and many species are now confined to these areas, but losses have not been halted. Many experts call for more protected areas, while others point to degazettements gathering pace, and social welfare groups are vociferous in their critiques of the impacts of some protected areas on peoples' rights and wellbeing. Management effectiveness remains a key issue and available funds are failing to keep up with the increase in the area under protection.



Although it is difficult to link cause and effect very precisely, international commitments have been influential in driving the increase in the global protected area estate, particular the so-called Aichi Biodiversity Target 11. Agreed by signatories to the Convention on Biological Diversity (CBD) in 2010, this calls for 17 per cent of land and 10 per cent of oceans to be protected by 2020. The numerical aspect of the terrestrial target has almost been achieved and there has been a rapid expansion of marine protected areas. However the more nuanced elements of Target 11, i.e. “*effective and equitably managed systems which are ecologically representative, well-connected and integrated into the wider landscape and seascape*”, have proved harder to achieve, and in some cases even hard to assess. In two years the targets will be renegotiated. Of equal importance, the globally agreed Sustainable Development Goals, which make up the United Nations 2030 Agenda for Sustainable Development, whilst the subject of much debate, brought clarity and focus to development worldwide. Agreed in 2015, many of the goals acknowledge the importance of conservation in their achievement and reflect the ambitions in the Aichi Biodiversity Targets.

There will be much discussion on the future of protected areas, and their purpose, over the coming two years. This first *Equilibrium Research Dialogue* presents our thoughts and experiences on some of the key issues.

Our responses

It is important that those concerned with the future of biodiversity and protected areas start to think now about what is needed, what challenges and opportunities exist, and to identify priorities for actions by protected area managers, policy makers and supporters in the next few years. **This is perhaps our only realistic chance to ensure that the global goals for conservation and development are linked.**

The following *Equilibrium Research Dialogue* identifies 10 critical issues, listed below, and their associated challenges facing protected areas, along with some suggested responses in the context of developing post-2020 protected area targets. In some cases the responses are already taking place, but often need far wider application or support to become mainstreamed, in other cases new initiatives and guidance are needed urgently.

1. Creating a robust protected areas system
2. Recognising and maximising benefits from protected areas
3. Reconciling local needs with conservation
4. Increasing professionalisation in protected area management
5. Strengthening conservation and social outcomes
6. Optimising use of new technology
7. Ensuring sustainable financing
8. Integrating landscape approaches with conservation
9. Bringing futures thinking into protected areas
10. A conservation agenda beyond 2020

This is perhaps our only realistic chance to ensure that the global goals for conservation and development are linked



Ensuring clarity
Embracing diversity
Securing conservation



CHALLENGES

Despite the International Union for Conservation of Nature (IUCN) agreeing a revised definition of protected areas a decade ago, key issues remain open to accidental or deliberate misinterpretation. The CBD has its own definition; although the institutions view them as equivalent, the confusion is not ideal. The emergence of a new designation, “*other effective area-based conservation measures*” from Aichi Target 11 (OECMs – a defined set of areas outside protected areas that are also useful for conservation) creates uncertainty about what “counts” towards Target 11. Marine protected areas are being declared that patently fail to meet globally-agreed criteria. Protected area systems filled with paper parks that do not set out to do what a protected area is supposed to do, or have never been implemented, simply creates a false sense of security and are open for criticism and dismissal as a solution to both conservation and development goals. Furthermore, a resolution at the 2016 World Conservation Congress calls for investigation of a new category of *Indigenous Protected Areas* in Central America, which could open up the whole system, and there is uncertainty about whether all Ramsar wetland sites are also protected areas. At the same time, Protected Area Downsizing, Downgrading and Degazettement (PADDD) is increasing rapidly, as governments learn they can ignore or reverse their own protected area legislation without significant censure from the international community.

The stereotypical view of protected areas as state run national parks is also changing. Privately protected areas, sacred natural sites, indigenous and community conserved areas and sustainable use areas all provide new opportunities and a rethinking of once-accepted ideas on what protected areas stand for and their management approach.

RESPONSES

- Address, as soon as possible, remaining debates and uncertainties about definitions of OECMs and protected areas, particularly in the marine realm, for wetlands, and as they relate to Indigenous Peoples, and ensure global accounting processes are robust.
- Challenge PADDD, by highlighting government backsliding in international processes.
- Identify or develop an independent body to challenge “protected areas” that fail to meet agreed definitions and principles on conservation or social grounds.
- Promote and develop best practices and guidance for a more diverse approach to protected area establishment and management.

CHALLENGES

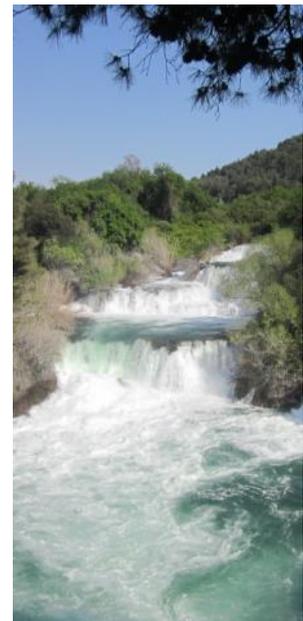
A wide range of ecosystem services and cultural values from protected areas have been described and recognised. Many examples of their recognition in protected area management exist, along with examples of successful Payment for Ecosystem Service schemes, whereby protected areas or resident and local communities receive financial rewards for their management of ecosystem services such as water. But despite a growing list of good case studies, many governments, municipalities and companies remain unaware of the role of ecosystem services arising from protected area management. They regard them vaguely as a “free good” and do not appreciate the linkages between site-based conservation and achievement of the Sustainable Development Goals. As a result, protected areas suffer from lack of supportive policies, isolation from overall regional planning processes and inadequacy of funding.

There are signs of changes; for example the declaration by 18 countries in Latin America and the Caribbean recognising the role of protected areas in climate change mitigation and adaptation. But globally there is a lack of recognition of the wide range of assets supported by protected areas. A concerted push to build awareness and political support remains a priority; at the level of international debate, within governments, among civil society and industry, and with individual protected areas.

RESPONSES

- Integrate benefits assessment as a standard element of protected area management, through inclusion in global targets, case studies of how valuation can help strengthen protected area security and management and development of site-level capacity and expertise.
- Promote Payment for Ecosystem Service schemes and identify best practice for application for multiple ecosystem services, including case studies.
- Draw together authoritative guidance on assessment and management of ecosystem services from protected areas, including ensuring this does not undermine nature conservation goals.
- Promote the role of protected areas in mitigating and adapting to climate change.

Natural solutions
Sustainable development
Recognising assets



Ensuring rights
Engaging partners
Localising management



CHALLENGES

The relationship between protected areas and people living in or near them remains complex; with rights holders' and stakeholders' attitudes ranging from support to resistance. Assessments suggest that many managers of protected areas struggle to address social issues. There is a growing antipathy to the whole concept of protected areas amongst some academics and human rights groups; these splits within progressive movements are possibly also sometimes being encouraged by those wishing to gain access to the resources in protected areas. Rights have not been ignored: particularly since the 2003 World Parks Congress there has been growing attention to community rights and Free Prior and Informed Consent; use of more participatory approaches; emergence of different governance models and benefit-sharing mechanisms. But critics point out gaps between words and actions when it comes to safeguarding human rights in protected areas.

It is therefore over-optimistic to say that these efforts have, as yet, addressed underlying problems in some parts of the world, or turned around attitudes. In particular, continuing tensions with Indigenous Peoples' groups is worrying and counterproductive. Yet in most cases Indigenous Peoples want security of land and water management with outcomes similar to conservation interests. These conflicts are going to continue to undermine both conservation and sustainable development, until they are addressed in a comprehensive manner.

RESPONSES

- Continue to recognise, document and promote a wide range of governance types in protected area systems.
- Address gaps in governance quality, in all protected area governance types, through on-the-ground training, assessment and provision of improved capacity-building materials.
- Undertake a comprehensive investigation – a task force or commission – into how conservation and human rights intersect in the territories of Indigenous Peoples.
- Develop and implement rapid systems for the assessment of social costs and benefits of protected area management, as a standard part of management.
- Increase the role of resident and local people in management decisions and day-to-day management of protected areas, with more advice made available about successful models.

Increasing professionalisation in protected area management

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CHALLENGES

Wildlife crime is increasingly a transnational organised “business” generating billions of dollars. Despite this, many protected area managers and rangers receive no special training, commonly being seconded from the forest service or taking on the decision to manage land in their care for conservation purposes with little external support. Even when training is available, it often fails to address many of the wider issues – social conditions, poverty reduction, adaptation to climate change and management of ecosystem services – that protected areas are expected to provide. Rangers are often undervalued, under-resourced and poorly paid, despite doing an increasingly difficult and dangerous job. If they come from local communities, they have often received insufficient education to advance far in their organisation, however well they perform.

Protected area management requires access to wide-ranging and site/system specific skills, techniques of participatory management and monitoring technologies. Increasing professionalisation, building a cadre of committed staff, and raising perceptions of the importance of protected area management are key elements in driving better management.

RESPONSES

- Encourage proper training and equipping of protected area managers, staff and – especially – rangers, which meets agreed management and competency standards.
- Diversify options for training provision including online options.
- Focus on supporting effective enforcement in protected areas facing poaching, including monitoring (e.g. SMART), developing intelligence systems and increasing community support.
- Address gender disparities in protected area management and in decision-making in private or community-run protected areas.
- Implement and promote accreditation systems like the IUCN Green List, Conservation Assured | Tiger Standards (CA|TS) and ecotourism certification to strengthen protected area management.

Safeguarding assets

Supporting staff

Diversifying capacity



Multiple partners
Sustainable development
Effective PA systems



CHALLENGES

Protected areas will not work without the support of the people. We now know a lot about why protected areas succeed and why they fail, but still face major challenges in applying this knowledge to secure effective conservation and social outcomes. Problems like poaching, land degradation, unsustainable resource use and social conflict have been intensifying, and climate change is adding unpredictable pressures. The increasing focus on governance of protected areas is a welcome move towards achieving the target of equitable management, and a first step towards ensuring better social and conservation outcomes, but this needs to be supported by more action on the ground. Much of the policy and legislation which underpins protected areas development and management has failed to keep up with changes in globally accepted best practice around the social and conservation issues outlined in the Aichi Biodiversity Targets and the Sustainable Development Goals, often exacerbating conflict and undermining any opportunity of achieving a balance between social and conservation outcomes.

For much of the world the global protected area system is generally seen as something “apart” from the rest of society, and a net drain on resources and economy. One major opportunity for building support for protected areas is through mainstreaming – making protected areas better known, more relevant and more a part of everyday life. More sophisticated approaches to development, particularly through the Sustainable Development Goals, offer new ways to bring an effective protected area network into the mainstream.

RESPONSES

- Encourage countries to review protected area policies and legislation and consider the links between protected areas, the Aichi Biodiversity Targets, Sustainable Development Goals, climate stabilisation and sustainable economic growth.
- Develop more effective partnerships in protected areas management, that extend well beyond the conservation community to include the full suite of users: including a wide array of government ministries, water companies and other commercial resource users, development agencies, tourism businesses and informed members of civil society.
- Strengthen research efforts in protected areas, both through better monitoring efforts on site, and through partnerships with academic bodies, knowledgeable amateurs, etc.

CHALLENGES

The boom in technology since 2000, including a rapid increase in the availability of inexpensive and accurate communication and monitoring equipment; the use of crowd-sourced data gathering processes; the Internet of Things; and social media, are transforming the world. But these new technologies are often not being incorporated quickly or widely enough into protected area management. And technology provides both opportunity and challenges; the more sophisticated criminal gangs targeting wildlife resources in protected areas often have more up-to-date technology than the rangers protecting wildlife, for example the increasing use of drones. Opportunities extend well beyond monitoring and surveillance; and include linking the day-to-day work of rangers to civil society and schools; allowing increasingly sophisticated evaluation of ecosystem services; and generally connecting protected areas more closely into wider society through, for example, live-streaming webcams.

New technology gives the opportunity to collect information, increase management effectiveness and build support. However, even the use of inexpensive smart phones for communication and information gathering and sharing has not been utilised well enough in conservation strategies to date. As an added bonus, making far wider use of new technologies also offers opportunities to develop links with innovative, and often philanthropic, companies to support protected area management.

RESPONSES

- Invest in guidance, training and purchase of new generation monitoring and communication equipment.
- Integrate social media into protected area management, encouraging rangers and others working in protected areas to share stories, challenges and discoveries with a global audience.
- Work with online platforms to bring people – visitors, workers and local people – together to develop protected area monitoring, both of biodiversity and of potential disturbances, such as poaching or encroachment.

Recognising change
Utilising communication
Adapting technologies



Sustainable resourcing
Diversifying funding
Understanding potentials



CHALLENGES

Almost all protected areas remain underfunded and in many countries staff struggle without proper transport or fuel supplies, and with ancient equipment, poor living conditions, low wages and budget uncertainty. Sudden, erratic injections of cash from NGOs or donor agencies can themselves cause problems in countries with poor government oversight or rule of law, simply boosting corruption and theft. Financing often fails to keep pace with the growth of the protected area estate, meaning that new protected areas appear on paper but have few or no resources for implementation. Potential funds, such as the REDD+ mechanism, have failed to deliver on the scale required, and conservation organisations have been slow to understand, develop and advocate the types of new funding mechanisms developed by the financial markets.

Understanding the scale of the shortfall, and coming up with innovative and achievable suggestions for reducing the deficit, are urgent priorities, which require new skills and new partners. New approaches and mechanisms are being developed, particularly for privately managed protected areas, but more needs to be done to learn from successful examples.

RESPONSES

- Develop a global task force with a team of independent and sympathetic experts from the finance sector to investigate funding needs for protected areas, along with existing and potential funding mechanisms, to identify gaps and ways of filling these.
- Provide cogent arguments on the economic value of protected areas, using real-world figures rather than theoretical or potential figures, to help build government support for maintaining and increasing funding.
- Build international consensus around the need for users to make realistic contributions to the costs of maintaining ecosystem services from protected areas and other natural ecosystems.

CHALLENGES

It is accepted that protected areas cannot “save” biodiversity on their own; many species and habitats will remain outside the protected area network and thus rely on other forms of management to survive. A good network of protected areas will nevertheless secure many species from extinction, provide the backbone of regional ecosystems and their goods and services, and support the achievement of the Sustainable Development Goals. Protected areas in turn need to be supported by other sympathetic land and water management. “Landscape approaches” to conservation recognise this, but remain more of a concept than a reality in most parts of the world.

The definition and recognition of other effective area-based conservation measures (OECMs) provides a timely addition to the conservation toolbox, although their precise role and function is still being worked out. A third designation, Areas of Connectivity Conservation, is also emerging. Understanding what these new approaches can and cannot do for biodiversity conservation and their contribution to supporting protected area effectiveness, along with the role of other sustainable land-use policies that are neither OECMs nor protected areas (for example some forms of sustainable forestry or livestock grazing), is a critical next step in building effective national or regional biodiversity conservation strategies.

RESPONSES

- Develop guidance, and case studies, on bringing OECMs into systematic conservation planning, optimising their integration with new and existing protected area systems.
- Build understanding of connectivity at national, regional and where necessary (e.g. for migratory species) global level, identify gaps and look at options for filling these.
- Ensure that any future international conservation area-based targets distinguish clearly between protected areas and OECMs; and that global datasets are well equipped to be able to measure the different management approaches.

Wider visions
Clarifying roles
Building sustainability



Adaptable approaches
Forward planning
Evolving opportunities



CHALLENGES

By their nature, protected areas are often seen as tools for keeping things as they are; the emphasis on permanence, long-term commitments and the importance of original, natural ecosystems all implies stasis. But in reality the world is evolving very fast, and protected areas are going to have to evolve along with it if they are to maintain their relevance. Some of these changes could alter the roles of protected areas, including the large-scale ecological transformation as a result of climate change, the emergence of novel ecosystems and the stranding of species in places where conditions are no longer compatible with their survival. Other anthropogenic influences, such as the spread of invasive species, are also having profound effects on ecology.

Other changes could support the conservation agenda. For example, currently over a quarter of the world's land surface is used for livestock grazing and demand for meat and dairy products is continuing to increase fast. But the development of artificial meat and dairy substitutes could change this dramatically; any large-scale replacement of livestock products would have huge impacts on rural livelihoods and land uses. Conceivable changes in energy supply, recycling technology and transport options could create similarly spectacular changes in demands on land and water. Futures thinking, while inevitably speculative, is essential if conservation policies are to remain adaptable and effective.

RESPONSES

- Link protected areas more effectively to wider land and water use policies and sustainable development.
- Ensure that adaptation to environmental change, including climate change, becomes a standard, expected and adequately supported part of protected area planning, monitoring and management.
- Employ futurology techniques to provide scenarios of potential trajectories for protected area systems, to maximise the chances of reacting positively to both future threats and opportunities.

CHALLENGES

Many people see the 2020 renegotiation of the Convention on Biological Diversity's Aichi Biodiversity Targets as a "Paris moment": a decisive step forward towards biodiversity conservation in the way that the 2015 meeting of the UN Framework Convention on Climate Change marked a change in pace in addressing climate change. But this will not be easy to achieve. Most of the current Aichi Biodiversity Targets will fail, sometimes spectacularly. The protected area target, Aichi 11, is likely to be reached in terms of area under protection, a rare and welcome success, but the wider issues of effectiveness, equity and ecological representation will definitely not be met and many of the "protected areas" created will be little more than paper parks. Nor is there anything like the consensus around biodiversity conservation as there was – albeit with some notable exceptions – around climate change. An ambitious set of CBD targets that are rejected, or that scrape through but get ignored by governments, would be undermining of the whole conservation enterprise.

The next two years represent a critical time to be building support for and consensus around an ambitious set of conservation targets; and for ensuring that these link with other initiatives, such as the Sustainable Development Goals, to become an integrated global agenda for a more equitable, and sustainable future.

RESPONSES

- Whatever future biodiversity targets emerge after 2020, it is important that they are developed as a whole package rather than, for instance, protected area targets being negotiated separately from the overall programme.
- Revised targets should also be clearly linked to and supportive of the achievement of the 2030 Sustainable Development Goals.
- Any area targets for delineating land and water for conservation will need to be separated out into specific designations, such as area in protected areas and area in OECMs.
- A substantial increase in targets for the percentage of land and water in natural ecosystems will only succeed if the case is made beyond the conservation community, by local communities, Indigenous People, industry and governments.
- This assumes a radically different approach by the conservation community, working with new partners, preparing to negotiate and examining trade-offs.

Bold goals
Building consensus
Strategic approaches



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Equilibrium Research: Practical solutions to conservation challenges, from concept, to implementation, to evaluation of impact.

Sue Stolton and **Nigel Dudley** established Equilibrium Research in 1991. With partners ranging from local communities to UN agencies across the world, we explore and develop approaches to natural resource management that balance the needs of nature and people. We see biodiversity conservation as an ethical necessity, which can also support human wellbeing.

We run our own portfolio of projects and offer personalised consultancy.
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Beginning in 2018, Equilibrium Research is producing regular dialogues on current conservation issues. These dialogues can be downloaded from our website www.equilibriumresearch.com or contact sue@equilibriumresearch.com or nigel@equilibriumresearch.com for copies.