DEVELOPING AN OUTCOMES-BASED APPROACH TO ACHIEVING TARGET 3 OF THE GLOBAL BIODIVERSITY FRAMEWORK

Nigel Dudley[1*], John Robinson[2], Sandy Andelman[2], Heather Bingham[3], Lori Anna Conzo[4], Jonas Geldmann[5], Kirsten Grorud-Colvert[6], Georgina Gurney[7], Valerie Hickey[8], Marc Hockings[9], Harry Jonas[10], Marianne Kettunen[11], Daniel Marnewick[12], Michel Masozera[13], Brent Mitchell[14], Jeffrey Parrish[15], Kent Redford[16], Andrew Rhodes Espinoza[17], Daniela Russi[18], Nick Salafsky[19], Jenny Springer[20], Jenna Sullivan-Stack[5], Helen Tugendhat[21], James E.M. Watson[22], David Wilkie[2] and Stephen Woodley[23]

*Corresponding author: nigel@equilibriumresearch.com

[1]Equilibrium Research, 47 The Quays, Cumberland Road, Bristol BS1 6UQ, UK
[2]Wildlife Conservation Society, Bronx, NY, USA
Affiliations continued on page 43

ABSTRACT

The draft Global Biodiversity Framework proposes to increase protected areas and OECMs to at least 30 per cent of land and ocean by 2030 (30x30). Such areas are central to conservation, but only if effectively managed and equitably governed. In practice, governments often recognise areas that do not achieve successful outcomes or respect human rights and fail to recognise other effective governance systems. We argue that protected areas and OECMs should only be recognised as fully contributing to 30x30 if they are on track to achieve positive and sustained biodiversity outcomes while respecting human rights. Three principles are important:

- Delivery of positive outcomes relating to biodiversity;
- Recognition and respect for rights-holders and stakeholders living in or near the area or dependent on its natural resources; and
- Meeting human needs through ecosystem services.

Four levels in making progress towards Target 3 can be distinguished:
1. Areas that are currently fully effective;
2. Areas that are currently partially effective or on track to being effective;
3. Areas that are currently ineffective due to reversible issues; and
4. Areas that are currently and will continue to be ineffective due to irreversible issues.

Some policy implications of this typology, its strengths and weaknesses, and how it might be further developed are discussed.

Key words: protected area, OECM, management effectiveness, biodiversity conservation, equity, outcomes

INTRODUCTION

In Draft 1 of the post-2020 Global Biodiversity Framework (GBF), the Convention on Biological Diversity (CBD) proposed a target for at least 30 per cent of the planet to be in effective systems of protected areas and other effective area-based conservation measures (OECMs) by 2030 (30x30). This is seen as a key component of its goal to reduce threats to biodiversity (wording from 2021):

Target 3. Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes (CBD, 2021).

Target 3 continues to be discussed within the CBD Open Ended Working Group, but the figure of 30 per cent has

strong support. Like Aichi Biodiversity Target 11, Target 3 includes "other effective area-based conservation measures" (OECMs) now with a definition adopted by Parties to the CBD in 2018. Target 3's ambition builds on (i) scientific evidence on the urgent need to reverse ecosystem collapse and species extinctions (Díaz et al., 2019), and (ii) broad consensus on the inadequacies of implementing Aichi Biodiversity Target 11 and a need to ensure sufficient efforts are directed to safeguard the Earth's remaining natural heritage.

Over 100 governments have committed to the target as part of the High Ambition Coalition for Nature and People[1] and over 70 as part of the Global Ocean Alliance[2], advocating a global deal to halt species loss and protect ecosystems vital to human health and economic security. Previously an aspirational goal, the target is now seen as critical to protect biodiversity and mitigate and adapt to climate change.

However, Target 3 has been criticised for perceived inadequacies in wording and aims (Maron et al., 2021). Fears have been voiced that should sites with loose rules and poor delivery be recognised as OECMs, the results will be counterproductive (Ball & Nixon, 2022). Additionally, there are concerns that an inappropriate process of protected area designation and OECM recognition could erode the rights and self-determination of Indigenous peoples and local communities that manage areas with high biodiversity, leading to injustice and harm (Schleicher et al., 2019; Gurney et al., 2021).

This paper examines the implications of the draft Target regarding (i) the types of area-based conservation to be included, which would enable people to live in harmony with nature and (ii) how this understanding can be translated into effective and equitable conservation

Ecuador - Napo Wildlife Lodge owned and run by indigenous peoples © Equilibrium Research

outcomes. This is clarified by a typology that classifies area-based conservation in terms of its ecological and social effectiveness, based around relevant principles. The paper is conceptual; we are aiming to start a conversation and to highlight the need for an outcomes-based approach rather than present a prescriptive action plan. We identify some of the steps needed to make this model into a practical conservation tool and urge that these issues will be considered carefully during negotiations for and implementation of Global Biodiversity Framework Target 3.

AREA-BASED CONSERVATION IN TARGET 3
Mechanisms, location, governance, effectiveness and equity

Target 3 will not be implemented in a vacuum but builds on existing national protected area networks and other less recognised areas of high biodiversity, such as many ICCAs. It draws on a long history of planning, practice and development regarding area-based conservation. Draft Target 3 recognises two mechanisms for area-based conservation relevant to meet the 30 per cent target: protected areas and other effective area-based conservation measures or OECMs (see Box 1 for definitions).

The IUCN World Commission on Protected Areas (WCPA) has issued guidance (IUCN WCPA, 2021) stating its support for the wording in Draft Target 3 that only protected areas and OECMs should count towards the 30x30 target. In addition, Target 3 has a range of other preconditions, as outlined in the following paragraphs.

Location: Target 3 recognises that to protect the full range of ecosystems and species, protected areas and OECMs need to be located in priority places for biodiversity ("areas of particular importance to biodiversity") that are "well-connected" and integrated in an "ecologically representative" system. This implies the need for accurate data on the location of all types of biodiversity, still lacking in most places, and careful planning, negotiation and management to secure ecological connectivity. Selection can be assisted by global prioritisation processes, such as Key Biodiversity Areas, often aligned with systematic conservation planning and local and Indigenous knowledge (Smith et al., 2018). However, given the importance of community participation, the extent to which location of new protected areas and OECMs is exclusively data-driven will vary.

Governance: The target will focus increasingly on land and water outside state protected areas, including the high seas. This relates to various forms of sectoral and

Box 1

Protected area: The CBD defines a protected area as: "a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.[3]"

The International Union for Conservation of Nature (IUCN) has a different definition, which the CBD recognises as equivalent (Lopoukhine & Ferreira de Souza, 2012): "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." This is clarified by some principles, including: "...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" (Dudley, 2008).

Both the CBD and IUCN recognise a range of management approaches and governance types as applicable in protected areas, as long as these areas also meet the definition of a protected area.

The CBD defines an **Other effective area-based conservation measure (OECM)** as "a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values" (CBD, 2018).

While the main distinction between protected areas and OECMs is defined by the primacy of biodiversity conservation in management objectives, there are still grey areas, particularly in the case of protected landscapes and seascapes (IUCN Category V). The OECM framework may enable increased recognition and support for the conservation potential of Indigenous peoples' and local communities' territories and areas, by being more suited to their lands and territories than protected area status; yet it is still unclear whether this will be achieved in practice (Jones et al., 2018).

private governance but, at least on land, it chiefly reflects an acknowledgement of the existing and increased role for Indigenous Peoples and Local Communities (IPLCs) in Target 3, which will not be achievable without their leadership, partnership and support. The Target provides a huge opportunity to strengthen security of land, water and resource tenure and support for IPLC-led conservation, but only if rooted in a rights-based approach and guided by principles of procedural justice (Gurney et al., 2021). Establishment of new protected areas and OECMs in their territories must be initiated following local customs and/or approved by the relevant IPLC actors through processes that respect human rights obligations (e.g. UNDRIP, 2007), including Free Prior and Informed Consent (FPIC) and equitable benefit sharing and governance. Such territories may be counted either as protected areas or OECMs, depending on goals established by the relevant IPLC group rights-holders and/or stakeholders, and on full recognition of IPLC rights and governance in national frameworks for OECMs. And within protected areas other approaches, including a variety of privately protected areas, will be increasingly important.

Effectiveness: Target 3 requires that protected areas and OECMs be 'effective'. Effectiveness is traditionally used to describe how well an area is being managed – "primarily the extent to which it is protecting values and achieving goals and objectives" (Hockings et al., 2006). Numerous studies have assessed protected areas both in terms of whether they are located in optimal places for biodiversity (Joppa & Pfaff, 2009) and their management effectiveness. Research suggests (Jones et al., 2018) that at least a third of protected areas globally are under threat, losing natural areas and wildlife resources, and less than a quarter are adequately funded (Coad et al., 2019). Many have not been properly implemented in practice ('paper parks'), and others do not have a level of protection against extractive and destructive activities needed to achieve long-term conservation (Grorud-Colvert et al., 2021). The global portfolio of protected areas currently does a less than adequate job of protecting biodiversity, though at a national scale there has been some progress, and the CBD has a preliminary estimate that extinction risk of birds and mammals would have been two to four times higher without protected areas (Secretariat of the Convention on Biological Diversity, 2020). Assessing how and when OECMs deliver conservation outcomes is at a preliminary stage (Alves-Pinto et al., 2021). Additionally, 91 per cent of IPLC lands are considered to be in good or fair ecological condition and 36 per cent of the global coverage of Key Biodiversity Areas lie within IPLC lands (WWF et al., 2021).

A stronger focus on effectiveness should influence national conservation strategies. In countries with large networks of poorly managed protected areas, the emphasis may be on improving what is there (quality). In countries with low protected area coverage, the objective will be to increase the area under protected areas and OECMs (quantity), while at the same time ensuring that both new and existing sites are effective.

Equitable conservation: Being effective is a prerequisite but protected areas and OECMs also need to be "equitably managed" by assuring long-term sustainability through collaboration and fair benefit-sharing with rights-holders and stakeholders. CBD Decision COP XIV/8, Annex II (2018) provides guidance: "Appropriate procedures are in place to ensure that the diversity of rights holders and stakeholders are recognized, that rule- and decision-making is inclusive, and the costs and benefits are equitably shared." A stronger focus on equity is demanded by civil society, and underpins effective conservation, and will be a major factor in Target 3. Equitable conservation can be a driver of success, with studies documenting that sites co-managed with local communities often deliver better conservation outcomes (Zafra-Calvo & Geldmann, 2020). In countries where equity aspects of protected areas and OECMs are currently weak, a main emphasis will be conflict resolution and improved rights recognition in existing areas, while a stronger focus on equity will also influence how new areas are established or recognised.

Reporting protected areas and OECMs

The final Target 3 wording will provide a framework against which CBD Parties report to the World Database on Protected Areas (WDPA) and World Database on OECMs (WD-OECM). While the Target wording will be agreed by consensus among Parties, CBD Parties independently decide what is reported according to national policies and legislation, rather than the decision being made by the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC). UNEP-WCMC, which manages the WDPA and WD-OECM, advises governments to adhere to the CBD and IUCN definitions of a protected area and CBD definition of an OECM, and NGOs and civil society to work with governments to improve data quality. Nonetheless, protected areas that do not meet these definitions are sometimes reported to the WDPA by governments, and conversely areas that do meet the definition (e.g. some privately protected areas and ICCAs) may be omitted.

Data on management effectiveness is collated by UNEP-WCMC in the Global Database on Management Effectiveness (GD-PAME). The indicators derived from the GD-PAME currently provide only a limited picture of effectiveness (Geldmann et al., 2021), and UNEP-WCMC is developing a roadmap towards more meaningful indicators of effectiveness – encompassing the quality of governance, management and conservation outcomes (UNEP-WCMC, 2022). The resulting new and critical data infrastructure and indicators will support an outcomes-based approach to implementation of Target 3.

Overarching principles for effective and equitable conservation outcomes, based on existing language in CBD draft targets

To ensure accurate interpretation and application of Target 3 that is consistent and aligned with its intent will require a universal set of principles (or a common lens) applied to all categories of protected areas and OECMs regarding their eligibility for being reported towards Target 3 and more importantly, their ability to help achieve its aims.

In the following section three overarching principles are suggested to provide additional detail about what is included within 'intent' in this context. These lay out how draft Target 3 should be implemented, with relevant language from CBD drafts included in italics. We recognise that texts may change, but the quotations selected have all been reasonably constant during the negotiations.

Principle 1. Delivery of positive outcomes relating to biodiversity: "*The integrity of all ecosystems is enhanced, with an increase of at least 15 per cent in the area, connectivity and integrity of natural ecosystems, supporting healthy and resilient populations of all species, the rate of extinctions has been reduced at least tenfold, and the risk of species extinctions across all taxonomic and functional groups is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90 per cent of genetic diversity within all species maintained*" [GBF draft Goal A] AND "*biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people*" [2050 Vision].

Principle 2. Recognition and respect for rights-holders and stakeholders who live within or near the area and/or are dependent on it: "*Ensure equitable and effective participation in decision-making related to biodiversity by indigenous peoples and local communities, and respect their rights over lands, territories and resources*" [draft Target 21].

Principle 3. Meeting human needs through restoring, maintaining and enhancing ecosystem services: "*Nature's contributions to people are valued, maintained or enhanced through conservation and sustainable use supporting the global development agenda for the benefit of all*" [GBF Goal B]. Delivery of ecosystem services should not be at the expense of biodiversity outcomes or human rights.

Four elements must be in place for the principles to be successful. These are also the characteristics that need to be analysed in any attempt to assess the intent to meet the principles:

Design: Areas individually, or in an ecologically connected network (including where necessary transboundary conservation and strategically placed smaller reserves), are located in optimal places for biodiversity, and are sufficient in area coverage and management effectiveness to meet conservation objectives, including:
a. "*areas of particular importance to biodiversity", and "ecologically representative*" sites containing priority species or ecosystems.
b. "*well-connected systems of protected areas and OECMs*", that provide ecosystem integrity, long-term resilience, and integration into wider landscapes and seascapes.
c. "*its contributions to people*", including tangible and intangible values and ecosystem services [all quotes from draft Target 3].

Governance and social equity: "*equitably managed*" [draft Target 3], "*for the benefit of all*" [draft Goal B] and also draft Target 21 on rights of Indigenous peoples and local communities. Local rights-holders, especially Indigenous peoples, are recognised and their rights respected and protected. For Indigenous peoples and local communities with collective and customary ties to their lands, this includes ensuring no decisions potentially impacting on their rights are taken without their Free Prior and Informed Consent. Governance is by legitimate rights-holders and complies with customary and legal requirements for transparency, accountability, equity and fairness and includes credible and effective social safeguards and dispute mechanisms (Zafra-Calvo et al., 2017). Custodians are safe in their occupations and have the timely and competent support of relevant governance entities. Economic and social benefits, and any incentives and compensation payments, are spread equitably amongst rights-holders (Dudley et al., 2016), and monitored.

Conservation management: "*effectively … managed*" [draft Target 3]: management reflects rules and regulations defined by governance entities and is effective at achieving desired biodiversity outcomes, including ecosystem restoration if necessary, is financially efficient and is verified by regular monitoring and reporting of key effectiveness criteria (Mascia et al., 2014).

Long-term site security: "*long-term sustainability of all categories of nature's contributions to people is ensured*" [draft Milestone B.2], which assumes that local commitment, political and legal commitment, and financial commitment are all at a scale sufficient to effect conservation over the long term.

Restoring traditional agriculture, Al Shouf Biosphere Reserve, Lebanon © Marc Hockings

Contextual risks

Not all the steps outlined above will be achievable immediately in every site. Delivery of effective, equitable, long-term, area-based conservation is heavily influenced by factors that may be outside the control of those responsible for managing individual sites, or even systems of protected areas and OECMs. Conditions for permanence and effectiveness take time to achieve, as does agreement on conservation strategies. Ensuring social equity (Schreckenberg et al., 2016) in a site is often hampered by broader social and political conditions. The ability to prioritise sites of high biodiversity value will depend on how thoroughly the regional, national or local biodiversity has been assessed and mapped. Regardless, protected areas and OECMs should be recognised or established and managed in ways that facilitate achievement of these objectives, either within their boundaries or in broader land- and seascapes.

Assessing and supporting national readiness for 30x30 is an urgent priority. Within a country, area-based conservation is influenced by many factors, for example, the amount of natural habitat remaining (Locke et al., 2019); the existing legislative system; awareness of current biodiversity loss; the political strength of the environment ministry as compared with other ministries and the treasury; the agricultural, fisheries and extractive industries; large corporations; government recognition for customary and formal property rights; and security issues such as insurgency and organised crime (e.g. illegal, unregulated and unreported fishing). Considerations may be affected by donor priorities, issues like debt relief, and global markets for products that compete for space with conservation. Wildlife may move outside protected areas and OECMs and migratory species can be impacted in other parts of their range. Environmental shocks, from climate change and other factors, will influence conservation. Understanding whether factors that impact on the quality of protected areas and OECMs are endogenous or exogenous, and whether they are abatable or non-abatable by management authorities, will be important in planning interventions.

While these factors may all affect countries' collective ability to meet Target 3, the overarching principles remain valid. They may be used to improve the status of existing and new protected areas and OECMs and to facilitate progression of sites along a continuum of improvement.

The utility of an outcomes-based approach to achieving 30x30

The GBF is about valuing, conserving, restoring and wisely using biodiversity, in line with the CBD's other objectives of sustainable use and fair and equitable benefit-sharing. Effort spent on creating, identifying and investing in protected areas and OECMs is only worthwhile if they actually preserve, maintain and restore biodiversity. Currently, some protected areas do not deliver effective conservation. This may be due to lack of funds, weak governance, poor management, flawed design, weak laws and poor enforcement or due to degradation through environmental change. Others may achieve conservation of nature but impact negatively on human rights and well-being (Duffy, 2010). Responses to Aichi Target 11 often emphasised the "at least 17 per cent of land and 10 per cent of ocean" part of the target, rather than "especially areas of particular importance for biodiversity, effectively and equitably managed, ecologically representative and well-connected".

Effectiveness was discussed a great deal during negotiations for the Aichi targets, but then largely ignored. It is likely that the area component of Target 3 will receive most attention in the current GBF as well, and it is therefore essential to ensure that the focus on quality is stressed, by distinguishing protected areas and OECMs that are genuinely contributing to Target 3 to a greater or lesser extent, from those that are currently failing (but could turn around and contribute with adequate management) and those that may never contribute significantly to the Target due, for example, to poor design or location (Jonas et al., 2021). Elements of such an approach have already been proposed (Grorud-Colvert et al., 2021) and are in use (Sullivan-Stack et al., 2022) in marine protected areas.

A requirement for effectiveness is included in the IUCN definition of a protected area ("to achieve the long-term conservation of nature") and the CBD definition of an OECM ("governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity"). But in practice, governments have continued to report protected areas that do not achieve these outcomes and have failed to recognise other governance systems that are effective. Bringing a focus on outcomes into consideration will increase the real value of the Target, although the practical challenges of achieving this should not be underestimated.

Effectiveness does not only relate to ecology. The CBD notes the requirement for an "effectively and equitably managed system of protected areas" [draft Target 3, our emphasis; see also Box 2]. To meet the wider aims of the 2050 Vision and the Sustainable Development Goals (Kettunen et al., 2021), protected areas and OECMs also need to respect relevant social (human rights and needs)

and equity considerations, as laid out above, and to be monitored against these.

We therefore argue that protected areas and OECMs should only be recognised as fully contributing to the 30x30 target if they are on track to achieve positive and sustained biodiversity outcomes while respecting human rights.

We suggest protected areas and OECMs of all management approaches and governance types can be assessed against four states, with suggested implications in italics:

1. Areas are currently **fully effective** in achieving credible and measurable ecological outcomes (or identified conservation values in the case of OECMs), and relevant social outcomes: *The site counts towards the Target and requires continued investment and monitoring.*

2. Areas are **currently partially effective** or **on track** to achieving credible and measurable ecological outcomes (or identified conservation values in the case of OECMs), and relevant social outcomes: *The site counts towards the Target but requires further work to increase effectiveness.*

3. Areas are **currently ineffective** in meeting credible and measurable ecological outcomes (or identified conservation values in the case of OECMs) and relevant social outcomes due to **reversible** issues such as lack of financing, weakness in management, outside influences (e.g. political instability, social disruption, armed conflict, floods), or fixed management rules and governance systems that prevent effective conservation or undermine human rights: *The site currently does not count towards the Target and should be subject to urgent efforts to adapt management and support the site to achieve its intended outcomes.*

4. Areas are **currently and will continue to be ineffective** in meeting credible and measurable ecological outcomes (or identified conservation values in the case of OECMs) and relevant social outcomes,

due to **irreversible** issues such as long-term damage to the site, inherent and significant flaws in the design or other contextual risks: *The site does not count towards the Target and is unlikely to do so in the future.*

Such an approach can support analysis of and advocacy for individual sites and national systems and in time, protected areas and OECMs could be assessed against this framework using data reported to the WDPA and WD-OECM. Note that the typology focuses on current status; some sites are likely to become less effective over time (e.g. due to climate change). Including projections of ecosystem change could bring a useful additional dimension into the analysis even though these will often be speculative.

These distinctions will not be precise. Guidance is needed, for example, about definitions of 'effective', 'ineffective', 'relevant', 'equitable', 'inequitable' (where notions of 'equity are context specific, Gurney et al., 2021), clarity about who defines this for a site, how often effectiveness is evaluated, and how ineffective a protected area or OECM needs to be (and for how long) before it stops making a meaningful contribution. CBD language on OECMs recognises the potential of an area to achieve effectiveness over time. Many sites will see a decline in some species, particularly under climate change, without being ineffective overall and new ecosystem values continue to emerge. We would expect number 4 above to be unusual. None of these obstacles are insurmountable. The concept that governments and civil society should not accept ineffective or inequitable protected areas and OECMs is increasingly recognised by governments and donors and it is important to draw some boundaries about what this means.

Putting ideas into practice

All of the above will require careful and rigorous development, with close attention to equity. Clarity is needed about who defines the proposed outcomes for a given site and what is needed to measure progress, as different stakeholders and rights-holders may have different opinions. Clear goals and standards are needed to measure conservation outcomes, along with the skills

---

Box 2: Equitable and effective area-based conservation measures

In 2018, Parties to the CBD developed guidance for OECMs. In doing so, they clearly elaborated guidance for "effective area-based conservation measures", which includes considerations of equity and can be applied to protected areas and OECMs (Jonas et al., 2021). This includes requirements that sites are equitably governed, have sustained governance and management, deliver the long-term and effective conservation of biodiversity and, where relevant, conserve ecosystem functions and services and respect local values. These criteria, agreed by CBD Parties, provide a clear rationale for applying the framework we set out in this paper.

Clearing invasive plants from a protected forest, Sabah Malaysia © Equilibrium Research

and resources to monitor these. Intended conservation outcomes for individual protected areas will respond to global positions (here the GBF goals and targets) but should also be influenced by local conceptualisations of human–nature relations. Intended social outcomes need to be agreed at a very local level and include the priorities of both local rights-holders and often also of stakeholders in the wider area (e.g. people living further down a water catchment). This implies that agreement is reached on the identity of rights-holders and stakeholders. Some sites that do not match the definition of protected areas or OECMs may contribute to other CBD targets relating to sustainable use; these belong in the remaining 70 per cent; for example, a whole-ocean approach is vital for effective and sustainable ocean management.

Measuring progress

Ongoing work by UNEP-WCMC and its partners will provide a framework for reporting on the effectiveness of protected areas and OECMs, with indicators in development that will cover the quality of governance, management and outcomes. Questions remain about how progress towards ecological and social "outcomes" should be measured, and this will depend on factors such as resources, expertise, baseline data, etc. Two broad options exist (and can be used in combination):

1. Measuring by intent and enabling conditions plus simple supporting data (e.g. size, level of protection, stage of establishment) (Grorud-Colvert et al., 2021), setting of objectives, governance bodies, presence of management plan, monitoring plan and supportive legislation; often drawing on information gained through use of an existing assessment approach such as the METT (Stolton et al., 2021) and/or GAPA (Franks & Booker, 2018).

2. Measuring by assessment of outcomes of management on changes in ecological and social conditions over time, represented by trends in selected indicators, including through restoration (e.g. utilising proxy indicators to measure aspects of ecosystem condition) (Nicholson et al., 2021), and where possible some key species indicator data, and identified social indicators.

The two approaches are linked, in that 1 provides for the input while 2 speaks to the output. Without effective input of management, planning and governance, the conservation outcomes are seldom positive. The emergence of protected area management standards, such as the IUCN Green List of Protected and Conserved Areas Standard (Hockings et al., 2019) and species-specific standards such as Conservation Assured | Tiger Standards (Conservation Assured, 2018), provide a combination of both approaches.

DISCUSSION AND CONCLUSIONS

The principles and typology suggest a framework that could, with development, provide a range of benefits in terms of further rigour and accuracy in understanding and reporting on Target 3 of the Global Biodiversity Framework. There are signs that governments are

starting to recognise the importance of effectiveness and equity outcomes, rather than simply the classification of an area in the WDPA. We note for instance that the UK Department of Environment, Food and Rural Affairs has recommended that the UK's national parks and Areas of Outstanding Natural Beauty, reported as IUCN protected area category V in the WDPA, do not currently provide effective enough conservation to be included within the UK's 30x30 reporting.

More work is needed to understand how establishing a typology based on outcomes can be used as a positive conservation tool, particularly given the resources and capacity needed to document effectiveness within these areas in diverse conditions. Monitoring of protected areas and OECMs will need to be financed and carried out, after agreement is reached on what will be monitored (i.e. the desired outcomes in a particular place) and how. Rights-holders and landowners often resent outsiders making judgements about their territories and this potential conflict will be heightened where funding rests on a positive outcome. What happens if a protected area is valuable for conservation but has a poor human rights record? Or a protected area has the support of a local community but is losing species? Both these and other tricky situations are likely to occur.

There are also some potential drawbacks. A fundamental question relates to what should be done with any information collected. Concern is expressed that identifying something as "ineffective" or "not counting" might allow governments to justify further rollback and PADDD events (protected area downgrading, downsizing and degazettement, Mascia & Pailler, 2011), or be used by some governments and companies to argue that if the protected area is ineffective it should be opened for mining or other exploitation. The messaging surrounding any assessments needs to be handled very carefully. On the other hand, maintaining silence about protected areas established in ways that make them unable to secure the values for which they were created, or result in serious human rights violations, or are managed so badly that their values disappear, sets up conservation strategies to fail and provides critics with a reason to argue that protected areas are a failed model. It also risks 'protected area fatigue', where nations stop embracing bold efforts to undertake area-based conservation.

The ideas outlined above are a beginning; more work is needed to make them a reality. Further research will explore critical issues in depth. This will include how the ideas can be integrated with existing systems, such as the IUCN Green List Standard. Ideas around the 'green economy', 'nature positive' and biodiversity finance are developing fast and will be pivotal in developing economic incentives. Measurement and reporting of social outcomes will require very careful development.

All these issues need further thought, development and testing. And finally, it must be remembered that protected areas and OECMs are only one part of a response to environmental degradation, which requires broad-reaching and fundamental changes in the way that society, industry and commerce views the natural world. Sustainable management of the other 70 per cent of the planet needs to be strengthened, under other GBF Targets such as 1 (integrated spatial planning), 5 (sustainable use of wild species) and 10 (sustainable management of areas under agriculture, aquaculture and forestry). But getting management right on at least 30 per cent of land and ocean is a good place to start.

ENDNOTES

ACKNOWLEDGEMENTS

ABOUT THE AUTHORS
Nigel Dudley is a consultant and member of WCPA.

John Robinson is Joan L. Tweedy Chair in Conservation Strategy at the Wildlife Conservation Society.

Sandy Andelman is Vice-President of Conservation Strategy at the Wildlife Conservation Society

Heather Bingham coordinates Protected Planet at the UNEP World Conservation Monitoring Centre.

Lori Anna Conzo is Global Biodiversity Lead at the International Finance Corporation of The World Bank Group.

Kirsten Grorud-Colvert is Associate Professor at the Department of Integrative Biology, Oregon State University.

Jonas Geldmann is at the Center for Macroecology, Evolution and Climate, University of Copenhagen

Georgina Gurney is Senior Research Fellow: Environmental Social Science, James Cook University.

Valerie Hickey is Global Director, Environment, Natural Resources and Blue Economy, at the World Bank.

Marc Hockings is Emeritus Professor at the University of Queensland.

Harry Jonas is Senior Director, Conservation Areas at WWF US and vice-chair, WCPA OECM Task Force.

Marianne Kettunen is a specialist in trade and the environment and a member of WCPA

Daniel Marnewick is Regional Programme Officer, IUCN Green List of Protected and Conserved Areas, IUCN-Eastern and Southern Africa Regional Office.

Michel Masozera is Director, Policy and Partnerships for Africa at the Wildlife Conservation Society.

Brent Mitchell is Vice Chair, Scaling Natural Solutions for WCPA and Senior Vice President, QLF Atlantic Center for the Environment

Jeffrey Parrish is Global Managing Director, Protect Oceans, Lands and Water at the Nature Conservancy.

Kent Redford is a consultant working with Archipelago Consulting in Portland, Maine and an advisor to WCPA.

Andrew Rhodes Espinoza is the Ocean Coordinator and Sous Sherpa, High-Level Panel for a Sustainable Ocean Economy for Mexico and Deputy Chair of WCPA.

Daniela Russi is Senior Policy Manager, Environmental Policy at the British Ecological Society.

Nick Salafsky is a Director at Foundations of Success and Co-vice chair for Conservation Outcomes, WCPA.

Jenny Springer is a consultant with long experience in issues of rights and conservation.

Jenna Sullivan-Stack is a Postdoctoral Scholar at Oregon State University.

Helen Tugendhat works for the Forest Peoples Programme and is Vice Chair, Governance for WCPA

James E.M. Watson is Professor, School of Earth and Environmental Sciences, University of Queensland.

David Wilkie is Executive Director at Wildlife Conservation Society,.

Stephen Woodley is Vice-chair, Science and Policy for WCPA.

REFERENCES

Alves-Pinto, H., Geldmann, J., Jonas, H., Maioli, V., Balmford, A., Latawiec, A.E., Crouzeilles, R. and Strassburg, B. et al. (2021). Opportunities and challenges for other effective area-based conservation measures (OECMs) for biodiversity conservation. *Perspectives in Ecology and Conservation* 19 (2):115–120. doi:10.1016/j.pecon.2021.01.004.

Ball, T. and Nixon, S. (2022). An honest accounting: Improving BC's approach to claiming other conserved areas. Ottawa: Canadian Parks and Wilderness Society and Ecojustice.

Coad, L., Watson, J.E.M., Geldmann, J., Burgess, N.D., Leverington, F., Hockings, M., Knights, K. and Di Marco, M. (2019). Widespread shortfalls in protected area resourcing undermine efforts to conserve biodiversity. *Frontiers in Ecology and the Environment* 17(5):259–264. doi:10.1002/fee.2042.

Conservation Assured. (2018). Safe Havens for Wild Tigers: A rapid assessment of management effectiveness against the Conservation Assured Tiger Standards. Singapore: Conservation Assured.

Convention on Biological Diversity. (2018). Decision adopted by the Conference of Parties to the Convention on Biological Diversity: 14/8 Protected areas and other effective area-based conservation measures. CBD/COP/DEC/14/8 30 November 2018.

Convention on Biological Diversity. (2021). First draft of the post-2020 Global Biodiversity Framework. Open Ended Working Group on the Post-2020 Global Biodiversity Framework, Third Meeting, 23 August – 3 September 2021, CBD/WG2020/3/3.

Díaz, S., Settele, J., Brondízio, E.S., Ngo, H.T., Agard, J., Arneth, A., Balvanera, P., Brauman, K.A., Butchart, S.H.M. … Zayas, C.N. (2019). Pervasive human-driven decline of life on Earth points to the need for transformative change. *Science* 366:1327. doi.10.1126/science.aax31.

Dudley, N. (ed.) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN.

Dudley, N., Burlando, C., Cooney, R., Jones, S. and Kehaulani Watson, T. (2016). Draft principles for justice and equity in access to and distribution of benefits from ecosystem services in protected areas. *Policy Matters* 20:41–54.

Duffy, R. (2010). Nature Crime: How we're getting conservation wrong. New Haven, Connecticut: Yale University Press.

Franks, P. and Booker, F. (2018). Governance assessment for protected and conserved areas (GAPA): Early experiences of a multi-stakeholder methodology for enhancing equity and effectiveness. London: IIED.

Geldmann, J., Deguignet, M., Balmford, A., Burgess, N.D., Dudley, N., Hockings, M., Kingston, N., Klimmek, H., Lewis, A.H. … Watson, J.E.M. (2021). Essential indicators for measuring site-based conservation effectiveness in the post-2020 global biodiversity framework. *Conservation Letters* 14: e12792. doi.org/10.1111/conl.12792.

Grorud-Colvert, K., Sullivan-Stack, J., Roberts, C., Constant, V., Horta e Costa, B., Pike, E.P., Kingston, N., Laffoley, D., Sala, E. … Lubchenko, J. (2021). The MPA Guide: A framework to achieve global goals for the ocean. *Science* 373:1215. doi:10.1126/science.abf08.

Gurney, G., Darling, E.S., Ahmadia, G., Agostini, V., Ban, N., Blythe, J., Claudet, J., Epstein, G., Estradivari, … Jupiter, S.D. (2021). Biodiversity needs every tool in the box: use OECMs. *Nature* 595:646–649.

Gurney, G., Mangubhai, S., Fox, M., Kaitkoski Kim, M. and Agrawal, A. (2021). Equity in environmental governance: perceived fairness of distributional justice principles in marine co-management. *Environmental Science and Policy* 124:23–32. doi:10.1016/j.envsci.2021.05.022.

Hockings, M., Hardcastle, J., Woodley, S., Sandwith, T., Wilson, J.,, Bammert, M., Valenzuela, S., Chataigner, B., Lefebvre, T., … Miranda Londoño, J. (2019). The IUCN Green List of Protected and Conserved Areas: Setting the standard for effective area-based conservation. *PARKS* 25(2):57–66. doi:10.2305/IUCN.CH.2019.PARKS-25-2MH.en.

Hockings, M., Stolton, S., Leverington, F., Dudley, N. and Courrau, J. (2006). *Evaluating Effectiveness: A Framework for*

Assessing Management Effectiveness of Protected Areas. 2nd Ed. Gland, Switzerland and Cambridge, UK: IUCN.

IUCN WCPA. (2021). *What counts towards the 30by30 target?* Gland, Switzerland.

Jonas, H.D., Ahmadia, G.N., Bingham, H.C., Briggs, J., Butchart, S.H.M., Cariño, J., Chassot, O., Chaudhary, S., Darling, S., … von Weizsäcker, C. (2021). Equitable and effective area-based conservation: towards the conserved areas paradigm. *PARKS* 27(1):71–84. doi:10.2305/IUCN.CH.2021.PARKS-27-1HJ.en.

Jones. K.R., Venter, O., Fuller, R.A., Allan, J.R., Maxwell, S.L., Negret, P.J. and Watson, J.E.M. (2018). One-third of global protected land is under intense human pressure. *Science* 360:788–791. doi:10.1126/science.aap956.

Joppa, L.N. and Pfaff, A. (2009). High and far: Biases in the location of protected areas. *PLoS ONE* 4(12): e8273. doi:10.1371/journal.pone.0008273.

Kettunen, M., Dudley, N., Gorricho, J., Hickey, V., Krueger, L., MacKinnon, K., Oglethorpe, J., Paxton, M., Robinson, J.G. and Sekhran, N. (2021). *Building on Nature: Area-based conservation as a key tool for delivering SDGs*. Brussels: IEEP, IUCN WCPA, The Nature Conservancy, The World Bank, UNDP, Wildlife Conservation Society and WWF.

Locke, H., Ellis, E.C., Venter, O., Schuster, R., Ma, K., Shen, X., Woodley, S., Kingston, N., Bhola, N., … Watson, J.E.M. (2019). Three global conditions for biodiversity conservation and sustainable use: an implementation framework. *National Science Review* 6(6):1080–1082. doi:10.1093/nsr/nwz136.

Lopoukhine, N. and Ferreira de Souza, B. (2012). What does Target 11 really mean?. *PARKS* 18(1):5–8. doi:10.2305/IUCN.CH.2012.PARKS-18-1NL.en.

Maron, M., Juffe-Bignoli, D., Krueger, L., Kiesecker, J., Kümpel, N.F., ten Kate, K., Milner-Gulland, E.J., Arlidge, W.N.S., Booth, H. … Watson, J.E.M.. (2021). Setting robust biodiversity goals. *Conservation Letters* 14(5): e12816. doi:10.1111/conl.12816.

Mascia, M.B. and Pailler, S. (2011). Protected areas downgrading, downsizing and degazettement (PADDD) and its conservation implications. *Conservation Letters* 4:9–20. doi.org/10.1111/j.1755-263X.2010.00147.x

Mascia, M.B., Pailler, S., Thieme, M.L., Rowe, A., Bottrill, M.C., Danielsen, F., Geldmann, J., Naidoo, R. Pullin, A.S. and Burgess, N.D. (2014). Commonalities and complementarities among approaches to conservation monitoring and evaluation. *Biological Conservation* 169:258–267. doi:10.1016/j.biocon.2013.11.017

Nicholson, E., Watermeyer, K.E., Rowland, J.A., Sato, C.F., Stevenson, S.L., Andrade, A., Brooks, T.M., Burgess, N.D., Cheng, S.T. … Watson, J.E.M. (2021). Scientific foundations for an ecosystem goal, milestones and indicators for the post-2020 global biodiversity framework. *Nature Ecology and Evolution* 5(10):1338–1349. doi:10.1038/s41559-021-01538-5.

Schleicher, J., Zaehringer, J., Fastré, C., Vira, B., Visconti, P. and Sandbrook, C. (2019). Protecting half of the planet could directly affect over one billion people. *Nature Sustainability* 2 (12):1094–1096. doi:10.1038/s41893-019-0423-y.

Schreckenberg, K., Franks, P., Martin, A., and Lang, B. (2016). Unpacking equity for protected area conservation. *PARKS* 22 (2):11–26. doi:10.2305/IUCN.CH.2016.PARKS-22-2KS.en.

Secretariat of the Convention on Biological Diversity (2020). *Global Biodiversity Outlook 5*. Montreal.

Smith, R.J., Bennun, L., Brooks, T.M., Butchart, S.M., Cuttelod, A., Di Marco, M., Ferrier, S., Fishpool, L.D.C., Joppa, L. …de M. Scaramuzza, C.A. (2018). Synergies between key biodiversity areas and systematic conservation planning approaches. *Conservation Letters* 12: e12625. doi:10.1111/conl.12625.

Stolton, S., Dudley, N. and Hockings, M. (2021). *METT Handbook: A guide to using the Management Effectiveness Tracking Tool (METT). Second edition guidance for using METT-4*. Gland, Switzerland: WWF.

Sullivan-Stack, J., Alburto-Oropeza, O., Brooks, C.M., Cabral, R.B., Caselle, J.E., Chan, F., Duffy, J.E., Dunn, D.C., Friedlander, A.M. … Grorud-Colvert, K. et al. (2022). A scientific synthesis of marine protected areas in the United States: Status and recommendations. *Frontiers in Marine Science* 9: 849927. doi:10.3389/fmars.2022.849927.

UNDRIP. (2007). *United Nations Declaration on the Rights of Indigenous Peoples*. New York: United Nations.

UNEP-WCMC. (2022). *Feasible Indicators for Reporting on the Effectiveness of Protected Areas and Other Effective Area-Based Conservation Measures: Report from virtual workshop*. Cambridge, UK.

WWF, UNEP-WCMC, SGP/ICCA-GSI, LM, TNC, et al. (2021). *The State of Indigenous Peoples' and Local Communities' Lands and Territories*. Gland, Switzerland.

Zafra-Calvo, N. and Geldmann, J. (2020). Protected areas to deliver biodiversity need management effectiveness and equity. *Global Ecology and Conservation* 22: e01026. doi:10.1016/j.gecco.2020.e01026.

Zafra-Calvo, N., Pascual, U., Brockington, D., Coolsaet, B., Cortes-Vasquez, J.A., et al. (2017). Towards an indicator system to assess equitable management in protected areas. *Biological Conservation* 211:134–141. doi:10.1016/j.biocon.2017.05.014.

Author affiliations (continued from page 33)

[3]UN Environment Programme World Conservation Monitoring Centre, Cambridge, UK

[4]International Finance Corporation, Washington DC, USA

[5]Center for Macroecology, Evolution and Climate, Globe Institute, University of Copenhagen, Copenhagen, Denmark

[6]Oregon State University, Corvallis, Oregon, USA

[7]ARC Centre of Excellence for Coral Reef Studies, James Cook University, Townsville, Australia

[8]The World Bank Group, Washington DC, USA

[9]UCN World Commission on Protected Areas and University of Queensland, Brisbane, Australia

[10]World Wildlife Fund US, Washington DC, USA

[11]IUCN World Commission on Protected Areas, Plymouth, UK

[12]IUCN East and Southern Africa Regional Office, Cape Town, South Africa

[13]Wildlife Conservation Society, Kigali, Rwanda

[14]Quebec-Labrador Foundation US, Ipswich, Massachusetts, USA

[15]The Nature Conservancy, Denver Colorado, USA

[16]Archipelago Consulting, Portland, Maine, USA

[17]IUCN World Commission on Protected Areas, Mexico

[18]British Ecological Society, London, UK

[19]Foundations of Success, Bethesda, Maryland, USA

[20]Equator Group Consulting, Washington DC, USA

[21]Forest Peoples Programme, Moreton-in-Marsh, UK

[22]University of Queensland, Brisbane, Australia

[23]IUCN World Commission on Protected Areas, Chelsea, Quebec, Canada

RESUMEN

El proyecto de Marco Global de la Biodiversidad propone aumentar las áreas protegidas y los OECM hasta alcanzar al menos el 30% de la tierra y el océano para 2030 (30x30). Estas áreas son fundamentales para la conservación, pero sólo si se gestionan eficazmente y se gobiernan de forma equitativa. En la práctica, los gobiernos suelen reconocer áreas que no logran resultados satisfactorios ni respetan los derechos humanos y no reconocen otros sistemas de gobernanza eficaces. Sostenemos que las áreas protegidas y las OECM sólo deberían ser reconocidas como una contribución plena al 30x30 si están en camino de lograr resultados positivos y sostenidos en materia de biodiversidad, respetando al mismo tiempo los derechos humanos. Hay tres principios importantes:
- Obtención de resultados positivos relacionados con la biodiversidad
- Reconocimiento y respeto de los titulares de derechos y de las partes interesadas que viven en la zona o cerca de ella o que dependen de sus recursos naturales
- Satisfacción de las necesidades humanas a través de los servicios de los ecosistemas
Se pueden distinguir cuatro niveles en el progreso hacia la Meta 3:
1. Zonas que actualmente son plenamente efectivas.
2. Áreas que actualmente son parcialmente efectivas o están en camino de serlo.
3. Áreas que actualmente no son efectivas debido a problemas reversibles.
4. Áreas que actualmente son y seguirán siendo ineficaces debido a problemas irreversibles.
Se discuten algunas implicaciones políticas de esta tipología, sus puntos fuertes y débiles, y cómo podría desarrollarse.

RÉSUMÉ

Le projet de cadre mondial pour la biodiversité propose de porter les zones protégées et les OECM à au moins 30 % des terres et des océans d'ici 2030 (30x30). Ces zones sont essentielles à la conservation, mais seulement si elles sont gérées efficacement et gouvernées équitablement. Dans la pratique, les gouvernements reconnaissent souvent les zones qui n'obtiennent pas de bons résultats ou ne respectent pas les droits de l'homme et ne reconnaissent pas les autres systèmes de gouvernance efficaces. Nous soutenons que les zones protégées et les OECM ne devraient être reconnues comme contribuant pleinement au 30x30 que si elles sont en mesure d'obtenir des résultats positifs et durables en matière de biodiversité tout en respectant les droits de l'homme. Trois principes sont importants :
- La réalisation de résultats positifs en matière de biodiversité
- Reconnaissance et respect des détenteurs de droits et des parties prenantes vivant dans ou à proximité de la zone ou dépendant de ses ressources naturelles.
- La satisfaction des besoins humains grâce aux services écosystémiques
On peut distinguer quatre niveaux dans la progression vers l'objectif 3 :
1. Les zones qui sont actuellement pleinement efficaces.
2. Les zones qui sont actuellement partiellement efficaces ou en passe de l'être.
3. Les zones qui sont actuellement inefficaces en raison de problèmes réversibles.
4. Les zones qui sont actuellement et continueront d'être inefficaces en raison de problèmes irréversibles.
Certaines implications politiques de cette typologie, ses forces et ses faiblesses, et la manière dont elle pourrait être développée sont discutées.