

Using carbon management as a sustainable strategy for protected and conserved areas

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Abstract: Countries are edging towards an agreement to set aside 30% of land and ocean into protected and conserved areas. Yet the funding to support such an ambitious conservation measure is largely lacking. The figures needed are large. But well-managed natural ecosystems in protected areas offer benefits that meet other global commitments, like the Sustainable Development Goals, Paris Agreement, UN Decade on Ecosystem Restoration and many more. Protected areas thus offer contributions across many different international commitments, substantially increasing their real value. The use of REDD+ to create forest-based carbon credits offers opportunities for investors to tackle a wide range of socio-economic and environmental challenges simultaneously and is one of the clearest examples of multiplying benefits. These options are far from perfect, but already have a proven track record of bringing sustainable finance into conservation areas that have few other alternatives. We look at the pros and cons and argue that conservation institutions need to be scaling up their ambitions and bring such thinking more into the mainstream.

Key words: conservation areas; parks; reserves; conservancies; conservation finance

The Convention on Biological Diversity is proposing a global target of 30 per cent of terrestrial and marine areas to be conserved in protected areas or other effective area-based conservation measures (OECMs) by 2030, the so-called 30x30 target. The draft text reads: *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). Negotiations are continuing, but over 80 countries have already signed up to the High Ambition Coalition's call for 30x30, so whatever happens within the CBD this is already a genuine target for many governments.

However, there is little sign that these governments will match ambitions with adequate funding. Analysis suggests that there is currently a huge shortfall in the resources needed to manage protected areas (Lindsey et al., 2018). Including OECMs into the target, a new global designation describing areas identified for effective biodiversity conservation even though this is not usually the primary management aim (IUCN Task Force on OECMs, 2019), will bring additional costs in terms of capacity building, and monitoring.

There is therefore an increasing hope that protected areas and OECMs (often referred to as "protected and conserved areas") can recoup some or all of the costs of designation and management. The extent to which this is realistic depends largely on how the calculations are carried out and the assumption that all national parks can support themselves financially, through ecotourism is increasingly recognised as unrealistic (Lindsey et al, 2021). While large sums are produced by calculations of total value these have to date seldom been enough to convince government ministers, who are more interested in immediate financial values (Stolton et al, 2021). One problem for those trying to justify budgets for protected and conserved areas is that the debate is often presented as a black and white choice between the survival of wild flora and fauna and human development. Yet these areas offer direct, additional benefits with respect to a range of other obligations that governments have signed up to, including commitments to Land Degradation Neutrality for the UN Convention to Combat Desertification, the ecosystem component of Nationally Determined Contributions under the Paris Agreement of the UN Framework Convention on Climate Change, the restoration component of the UN Strategic Plan for Forests and

many of the UN Sustainable Development Goals (Kettunen et al., 2021), all of which rely on ecosystem services from functioning natural ecosystems. If these multiple commitments are factored in, the costs of protected and conserved areas suddenly seem much more reasonable, both in terms of the range of values and, in theory, with their costs met from many different budgets even within a single government.

At the same time, pressure is building on the conservation community to pay much greater attention to human rights and equity issues than has sometimes been the case in the past (UN General Assembly 2017). Bringing in wider voices, safeguarding mechanisms such as Free, Prior and Informed Consent (FPIC) for Indigenous peoples, and a move to participatory, bottom-up conservation is far easier if there are tangible benefits to be included in the discussions, including various forms of compensation payments.

REDD+ has been seen by many observers as one of the great hopes for conservation, a potentially significant and recurring source of income to pay people to manage their lands to help mitigate climate change. Around a fifth of the world's greenhouse gas emissions come from the destruction of natural vegetation, especially forests. The UN Framework Convention on Climate Change (UNFCCC) has developed an approach for monitoring and reporting the success of forest conservation activities which reduces greenhouse gas (GHG) emissions thereby contributing to climate change mitigation. REDD+ (or REDD-plus) stands for "*reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries*" (<https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd>).

This definition has evolved gradually. Importantly, it now includes funding for "conservation" of forests so that carbon asset development in developing country protected areas can be eligible for support. This was not the case when REDD was first included in climate agreements (such as The Kyoto Protocol) and it opens up important options for areas like national parks, conservancies, wilderness areas, wildlife reserves, buffer zones and conservation corridors with significant forest cover and conservation objectives.

Today, there are five “eligible activities” in REDD+

1. Reducing emissions from deforestation
2. Reducing emissions from forest degradation
3. Conservation of forest carbon stocks
4. Sustainable management of forests
5. Enhancement of forest carbon stocks

Protected areas and OECMs can play a role in all these but are most likely to be eligible in (3) *conserving forest carbon stocks*, or if the forests have been degraded – either before the area was managed for conservation or through weakness in management effectiveness – (5) *enhancement of carbon stocks* may also help support forest restoration.

A properly designed and secure REDD+ scheme can attract funding for conservation management that is not tied to tourism or public budgets, both severely challenged by the pandemic (Waithaka et al. 2021). It can finance securing forests, and thus help to secure biodiversity along with many other ecosystem services including water provision, disaster risk reduction and contributions to food security (thus impacting several SDGs). A proportion, often a major proportion, of REDD+ funding is obliged to support the livelihoods of local people, meaning they also have more incentive to use and manage forests sustainably. REDD+ is ideal for places where there are not many other financing options, for instance those with low tourism potential and no obvious fund-raising alternatives – remote conservancies, African miombo and savannah areas with heavy tsetse fly infestations or areas where security concerns keep people away, etc. This last example also highlights the fact that although aimed at forests, this does not only mean tropical rainforests as often assumed. Successful REDD+ projects run in temperate forests, African savannah woodlands (e.g. miombo and dryland Acacia-Commiphora forests) (Stolton et al, 2021, Stolton and Dudley, 2019) and is therefore eligible even for protected areas that include wide areas of grassland or tundra.

Bringing protected areas into REDD+

Committing to creating carbon assets using REDD+ means commitments in terms of management, conservation targets and measuring success against agreed baselines – it is very much a “results-based system” of payments for conservation. This is a “hidden” advantage in that it applies extra pressure to ensure management is working, and regular checks that things are progressing according to plan.

While there can be major benefits, there are also costs including additional bureaucracy and commitments and risks of failure. REDD+ schemes may have to be embedded in national systems that include (1) a national strategy, (2) a national forest reference emission system (i.e., an idea of the scheme’s potential), (3) national forest monitoring system for reporting, and (4) standardised data on social safeguards. Not all countries have these, although it is sometimes possible to work with governments to develop systems, this creates extra complications. The scheme will need to prove that it is really reducing the amount of greenhouses gases through reducing emissions, or carbon capture, against an established baseline scenario. Schemes have to be certified against global standards by third party verification bodies, in order to show how much carbon is saved and/or captured, how this will be done and measured, what the implications are for the management of the site, and how this will impact local communities. This last stipulation will need negotiation with Indigenous peoples and local communities living in or around the site. REDD+ requires Free Prior and Informed Consent (FPIC) on projects, which means that implications must be discussed and agreed by rightsholders and stakeholders.

A real problem with REDD+ is the risk that stopping forest loss in one place will result in people cutting down trees somewhere else and schemes will need to show they have taken effective steps to avoid this. This is partially managed by the standards themselves which maintain large buffers of unissued credits to cover serious leakage that result from the implementation of REDD+ projects.

These are genuine concerns. REDD+ offers huge advantages but is only worth starting if there is a strong management team in place, with good social relations with surrounding people, efficient staff and with the capacity to meet the demands of REDD+ third party certification. Some of the main steps (assuming that a national framework is in place) are laid out in Figure 1, and Box 1 outlined some of the key considerations.

A way forward

REDD+ is far from perfect. Although there are some voluntary REDD+ schemes supported by governments, the private sector and philanthropic individuals, there is still a debate about how a global REDD+ scheme will work and be financed within the current Paris Agreement. It is not clear whether this will really be a significant contribution to tackling climate change, or a more limited, voluntary response. Many protected areas have been nervous of committing the time and energy into what is still an evolving process. Yet there are plenty of good examples from which to draw lessons. Key steps forward include a widening of attention from closed forests to savannah and similar habitats, which contain fewer trees but still appreciable carbon reserves, a major emphasis on capacity building within institutions involved in managing protected and conserved areas, a strengthening safeguarding activities to ensure that local communities see genuine benefits, and greater outreach to potential investors. The multiplier effect of simultaneously addressing biodiversity conservation, land degradation, forest loss, climate change and improved conditions for local people mean that REDD+ hits almost every target in the field of sustainable development. In the light of the 30x30 target, a huge global push to bring protected and conserved areas more strongly into the carbon market is well overdue.

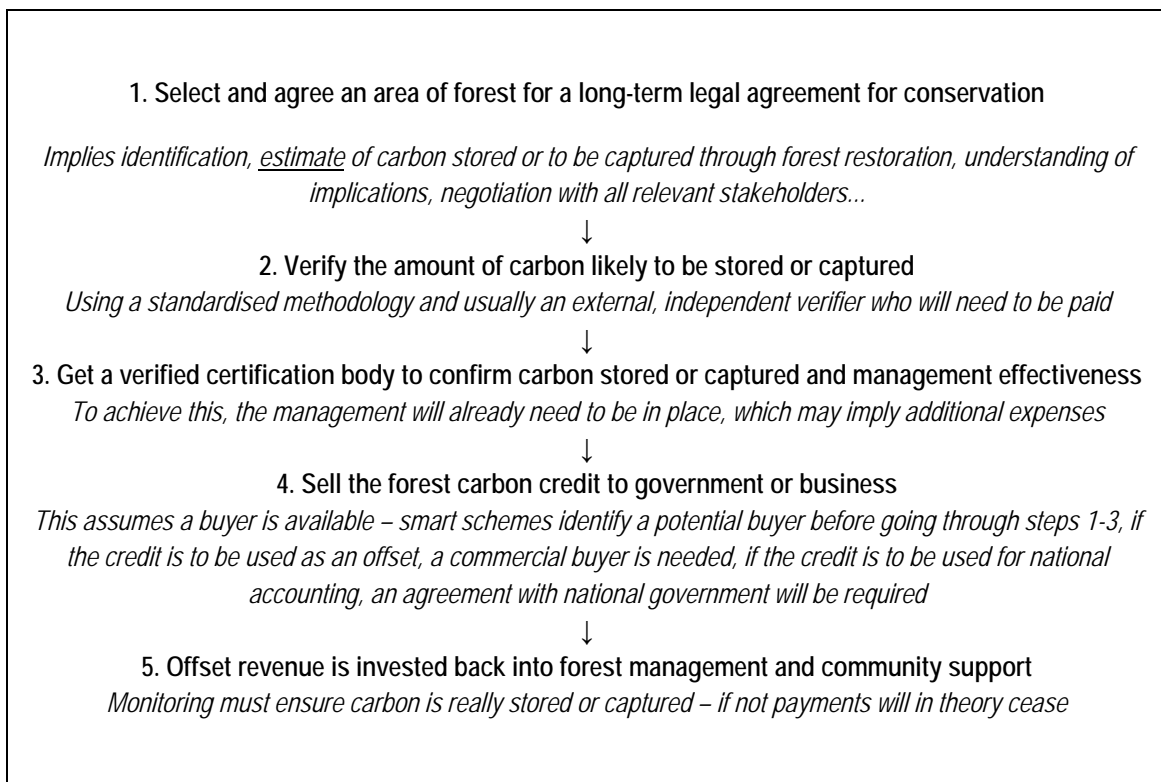


Figure 1: Steps to a REDD+ scheme in a protected area

Box 1: Steps that need to be in place to access REDD+ in a protected area or OECM

At national level, is there:

- ✓ A national REDD+ strategy?
- ✓ A national forest reference emission level agreed? (A sub-national figure can sometimes be used as an interim)
- ✓ A robust and transparent national monitoring system?
- ✓ A system for ensuring that social and environmental safeguards are being met?
- ✓ A government department or NGO available to give advice?

The first four are essential before designing or developing REDD+ schemes. Getting these in place is called “*REDD Readiness*”. The last is worth checking, because if there are knowledgeable people available, they should be a source of information and help, but this is not essential.

At the site level, before taking official steps to start the scheme, is there:

- ✓ An identified demarcated and mapped area of forest to use in the project?
- ✓ Agreement with local stakeholders about management, benefits and expectations?
- ✓ Agreement following a Free Prior Informed Consent (FPIC) process in the case of any resident or local Indigenous peoples?
- ✓ Robust estimations of the amount of carbon stored and/or captured by the proposed scheme?
- ✓ A detailed understanding of the drivers of deforestation in the landscape / reference region.
- ✓ Management plans that lay out clearly how the carbon is being stored or captured?
- ✓ Enough staff capacity and equipment to manage the area (including evidence of staff training if required)?
- ✓ An agreed monitoring system?
- ✓ A potential buyer of the carbon offsets (and if so have all their requirements have been met)?

With the carbon certification body is there:

- ✓ Agreed methods and costs?
- ✓ The verification process completed?
- ✓ A certificate obtained?

With the purchaser of carbon offsets is there:

- ✓ Agreed prices and conditions?
- ✓ Agreed monitoring process and the “goalposts” – how often do you report, what happens if things go wrong? (This should be captured by the verification process, some buyers might request specific reporting from the developer.)

Sites will need a dedicated person working on this part-time or full-time for a considerable period and will also need to assign people and resources to both the management and monitoring throughout the project. If local communities are involved, and particularly if they are beneficiaries, monitoring of their use of the forest will also be necessary, and someone with good negotiation skills needed if things start to go wrong.

Notes on contributors

Nigel Dudley and Sue Stolton established Equilibrium Research in 1991. Their work currently focuses on three main areas. This includes Browserscale Conservation: Integrating ecology with social values at a landscape level to achieve permanent conservation; Protected Areas: Identifying threats, promoting greater effectiveness and making the arguments for protection; Society and Environment: Researching the changing relationship between industrial society and the global ecosystem. Nigel is a fellow of UNEP-WCMC and a member of three IUCN Commissions, most actively with the World Commission on Protected Areas. Sue is a fellow of UNEP-WCMC and a member of IUCN World Commission on Protected Areas and the Commission on Environmental, Economic and Social Policy.

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