



Privately Protected Areas: Missing Pieces of the Global Conservation Puzzle

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Protected areas are an essential component of global conservation efforts. Although extensive information is available on the location of protected areas governed by governments, data on privately protected areas remain elusive at the global level. These are areas governed by private individuals and groups—ranging from families to religious institutions to companies—that meet IUCN's definition of a protected area: *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*. As the world's governments prepare to adopt a new post-2020 global biodiversity framework to guide conservation over the next decade, we argue that, without complete data on privately protected areas, they do so without a vital piece of the puzzle.

Keywords: privately protected areas, conservation planning, global conservation targets, databases, reporting

INTRODUCTION

New Zealand, already lauded for their success in addressing the COVID-19 crisis (Baker et al., 2020), set another example for the global community in 2020, becoming one of only a handful of countries to recognise the importance of privately protected areas (PPAs) by recording substantial numbers in the World Database on Protected Areas (WDPA) (UNEP-WCMC and IUCN, 2021a). On first reading, this may not seem like a significant achievement, but PPAs are critical to meeting global conservation targets, yet are too often missing from global accounting.

PPAs are diverse, encompassing the conservation efforts of a multitude of different actors. They are defined as protected areas (i.e., 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) under private governance. This broad definition means that the governance authorities of PPAs can range from individuals and groups of individuals to non-governmental organisations, corporations (commercial companies and corporations set up by groups of private owners to manage multiple PPAs), and for-profit owners, research entities (e.g., universities and field stations), and religious entities (Mitchell et al., 2018).

While the governance of protected areas may be the responsibility of a multitude of actors, the recording of data in the WDPA is most often handled by national governments. Although almost all governments record data on protected areas managed by their own ministries and agencies, only 40 have provided information to the WDPA on PPAs (Table 1). This is not because PPAs do not exist elsewhere, but because they are not being documented at national and international levels despite guidance from IUCN stating that such areas should be recognised as protected areas and recorded in the WDPA (IUCN, 2016). This is often due to a lack of centralised national data, or a reluctance to recognise PPAs on the part of some governments. In other cases, PPA governance authorities themselves may be unwilling to share their data, often due to privacy concerns (Fitzsimons and Wescott, 2007; Bingham et al., 2017). These concerns are legitimate and recording of PPAs in the WDPA should always be done with the consent of PPA landholders and governance authorities (Clements et al., 2018). A further challenge is that some protected areas that are legitimate PPAs may have been classified as another governance type (i.e., governance by government, shared governance, or governance by indigenous peoples and local communities). For example, as of 2018 the Brazilian Private Natural Heritage Reserves represented 48% of the number of protected areas in the country (IUCN, 2018) yet are classified as under government governance in the WDPA, while South Australia's private Heritage Agreements are recorded as under joint governance in the database (see also Bingham et al., 2017). Although the documentation of New Zealand's PPAs is an important step, a lack of specific governance information means that the governance type for these sites is currently recorded as "Not Reported," providing a further example of the challenges associated with PPA data in the WDPA.

Although the reasons behind the lack of data vary, their combined result is that the international community is still making decisions about conservation, development, and other land uses without a significant piece of the puzzle. It is also doing so without acknowledging protected areas dependent on the labour, financing, time, passion, and commitment (Scrimgeour et al., 2017) of tens of thousands of private groups and individuals.

DISCUSSION: THE NEED TO DOCUMENT PRIVATELY PROTECTED AREAS

At present, only 8.5% of public WDPA records are PPAs (Figure 1), and 73% of those are in the USA and New Zealand. At the conclusion of the decade-long Strategic Plan for Biodiversity in 2020 (CBD Secretariat, 2010), it is clear that we cannot yet fully measure the extent to which the world's natural heritage is protected. The Protected Planet Report 2020 revealed that, while significant progress has been made toward the percentage coverage elements of the Strategic Plan's Target 11 (with 17% terrestrial and inland water coverage having been achieved, and marine coverage tripling over the course of the decade), slower progress has been made in ensuring that the world's conservation network is representative of ecosystems and species,

TABLE 1 | Countries and territories with data on PPAs recorded in the WDPA, June 2021 (UNEP-WCMC and IUCN, 2021a), based on records with the governance types "Individual landowners," "For-profit organisations," and "Non-profit organisations," plus the New Zealand PPAs, which do not have a reported governance type.

Country or territory	Number of PPAs recorded in the WDPA
United States of America	11,877
New Zealand	4,694
Australia	1,620
Canada	1,192
South Africa	922
Colombia	912
United Kingdom of Great Britain and Northern Ireland	690
Mexico	336
Guatemala	151
Peru	87
Chile	19
Peurto Rico	17
Bermuda	16
Cayman Islands	16
Kenya	16
Honduras	13
Costa Rica	12
The Kingdom of Eswatini	9
United States Virgin Islands	6
Bonaire, Sint Eustatius, and Saba	5
Fiji	3
Nepal	3
El Salvador	3
Belize	2
Falkland Islands (Malvinas)	2
Madagascar	2
Marshall Islands	2
Mauritius	2
Namibia	2
Saudi Arabia	2
Aruba	1
Armenia	1
Antigua and Barbuda	1
Botswana	1
Côte D'Ivoire	1
Italy	1
Jordan	1
Mozambique	1
United Republic of Tanzania	1
Uruguay	1

Some PPAs may be incorrectly classified as another governance type in the WDPA and thus not included in the table.

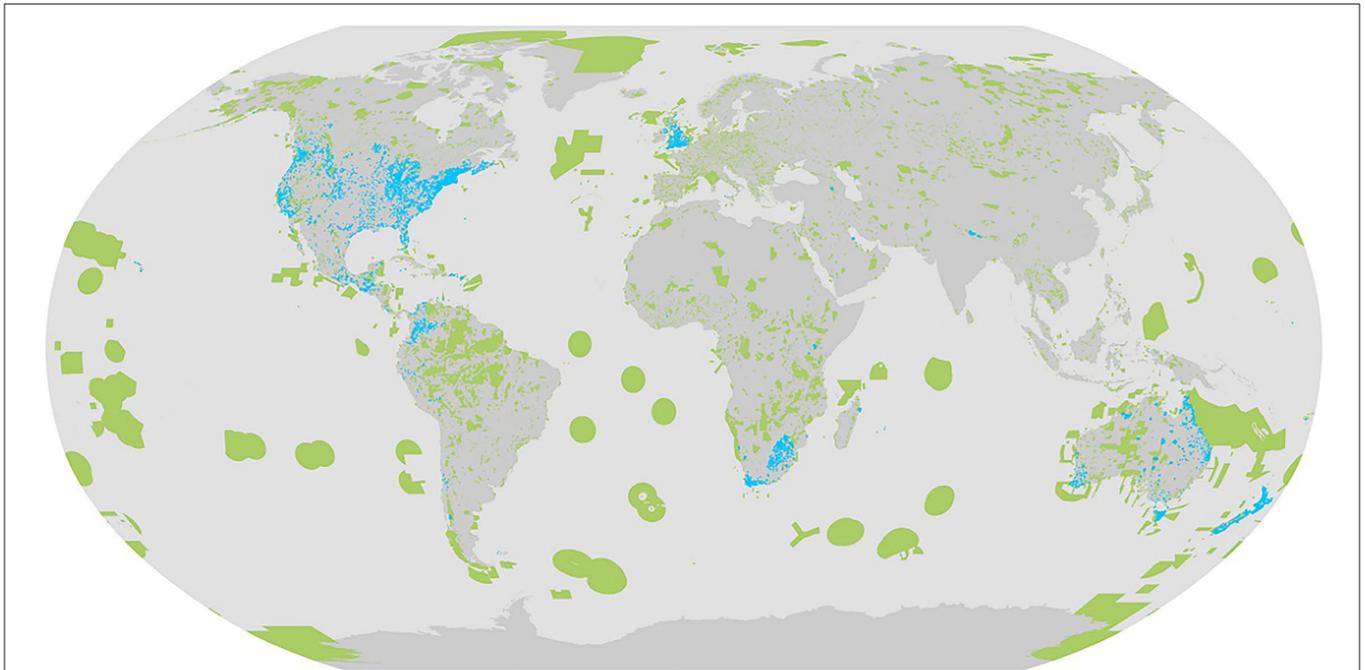


FIGURE 1 | Privately Protected Areas (PPAs) (blue; outlines included for visibility) in the World Database on Protected Areas, June 2021 (UNEP-WCMC and IUCN, 2021a), based on records with the governance types “Individual landowners,” “For-profit organisations,” and “Non-profit organisations,” plus the New Zealand PPAs, which do not have a reported governance type. Some PPAs may be incorrectly classified as another governance type in the WDPA and thus not shown on the map. Other protected areas are shown in green.

and that it reaches the areas most in need of protection. Connectivity between protected areas also remains low, and there is limited information on the effectiveness of governance and management (UNEP-WCMC and IUCN, 2021b). While it was based upon the most comprehensive global database of protected areas, the Protected Planet Report acknowledged that, in the absence of full reporting on non-government protected areas, its conclusions were drawn from only a partial dataset. If comprehensively documented, PPAs have the potential to change the status of each of Target 11’s elements, as has been observed at national or subnational levels for elements such as ecosystem representation and connectivity (e.g., Fitzsimons and Wescott, 2001, 2008a,b; Plissock and Fuentes-Castillo, 2011; Clements et al., 2019, Archibald et al., 2020). As a result, the initiatives of private actors (alongside those of indigenous peoples and local communities) have been described as “central” to the implementation of the post-2020 global biodiversity framework (Maxwell et al., 2020).

Although the post-2020 global biodiversity framework is still in draft form, it looks likely to include ambitious coverage targets for protected areas and other effective area-based conservation measures, including a 30% target for terrestrial, freshwater and marine systems (CBD Secretariat, 2021) that had been widely being proposed by conservation and science communities (Dinerstein et al., 2019). The draft framework is also more focused on systems approaches than its predecessor, calling

for comprehensive spatial planning, connectivity and integrity across landscapes and seascapes (CBD Secretariat, 2021). If these commendable ambitions are to be achieved, the international community will need to recognise that conservation can be—and is being—carried out by a wide range of governance actors and through a wide range of governance arrangements. Such recognition is needed to build an accurate baseline against which progress toward 30% coverage—and the draft target’s quality elements—can be measured. Recognition of PPAs also has value for the post-2020 global biodiversity framework beyond targets specific to protected areas, since effective PPAs will also contribute to the achievement of other draft targets, including those on species conservation and ecosystem services.

The example of New Zealand shows that progress can be made when private actors and governments are motivated to act together. The result in this case was an almost doubling of the number of protected areas recorded for New Zealand in the WDPA, increasing the country’s coverage by nearly 1,600 km². But beyond simply adding coverage, the Queen Elizabeth II National Trust, which provided the data and is a major national organisation establishing and monitoring PPAs in the country, focuses on securing lands that can contribute to achieving national biodiversity priorities, increase connectivity between protected areas, and promote landscape-level conservation. PPAs in New Zealand

are also known to contribute to the conservation of wetlands (Robertson, 2016) and kiwi species (Blue and Blunden, 2010).

Elsewhere, it has been documented that there are countries with even more extensive PPA networks, such as Australia with 89,130 km² and Peru with 28,800 km² (Fitzsimons, 2015; Bingham et al., 2017). Countries such as Mexico and South Africa have incentivised PPA creation in support of national biodiversity priorities, and in Finland PPAs are recognised for the forest coverage they provide (Stolton et al., 2014). While PPAs can, in some jurisdictions, make important contributions to the proposed overall area target of 30%, their contribution to other elements of the target—such as ecosystem representation, connectivity and maintenance of ecosystem services—could be even greater (e.g., Archibald et al., 2020). Crucially, new conservation initiatives cannot be effectively targeted to areas where they will best enhance these elements if there is no clear picture of what is already protected. As a result, fully documenting PPAs can improve the value of prioritisation exercises such as Systematic Conservation Planning, which require accurate inputs on existing protected areas to produce meaningful results. Furthermore, it can improve the accuracy of risk-assessments conducted by companies aiming to minimise their impacts on biodiversity; support the decisions of financial institutions that use the WDPA to inform sustainable lending practises; and enhance the impact of platforms such as Global Forest Watch that rely on an accurate WDPA (Bingham et al., 2019). Despite these benefits, many of these PPA networks are not fully represented in the WDPA, and many countries do not have legal or policy frameworks for recognising PPAs.

As a result, there are many national and subnational PPA networks quietly contributing to conservation without adequate and appropriate recognition. Although in some cases this is related to a lack of government acknowledgement, in others PPAs may be recognised by governments and recorded in national databases but not recorded in the WDPA. As the post-2020 global biodiversity framework is implemented, it will be critical that more countries take up the challenge of recognising and documenting PPA landholders and governance authorities. Although solutions to a lack of recognition will inevitably vary among countries, requiring adjustments to policy and/or legislation, other capacity barriers may be overcome through the promotion of simple data collection systems such as GIS mapping apps, enabling PPA governance authorities to generate and submit data to the national government; updating national databases to facilitate the submission and storage of data on PPAs; providing PPA governance authorities with the option to record data in the WDPA directly; building reporting requirements into voluntary incentive schemes for PPAs; and drawing on the capacity of NGOs and networks of volunteers to identify and collate data on PPAs (see Crofts et al., 2014 for a UK-based example). Importantly, IUCN's Guidelines for PPAs (Mitchell et al., 2018) provides guidance to PPA governance authorities

and governments, not only on recording data in the WDPA but on the establishment, management, and incentivisation of PPAs.

CONCLUSION

To conclude, there are multiple strong arguments for increasing the recognition received by existing PPA owners and governance authorities—not least that their efforts deserve to be celebrated—but increased recognition might also have the effect of encouraging PPAs to proliferate. This could result in even greater gains for biodiversity conservation, including in countries where PPAs do not currently play a major role. If new information on the extent of PPAs is accompanied by data on the quality of their governance and management, it could also help to resolve a currently patchy understanding of the effectiveness of protected areas—and their different governance types—globally. Such gains are needed now more than ever, as the COVID-19 pandemic forces governments and the public to take a closer look at biodiversity loss and exploitation, and as COVID-19 continues to negatively impact protected areas (Hockings et al., 2020; Singh et al., 2021; Waitthaka et al., 2021). With the links between nature and human survival becoming clearer, the need for an effective network of protected areas across multiple governance types is obvious. But without a full picture of what is already protected, the world will move into the next decade feeling its way in the dark, trying to protect the world's dwindling biodiversity without understanding what is already conserved.

DATA AVAILABILITY STATEMENT

Publicly available datasets were analysed in this study. This data can be found at: World Database on Protected Areas (WDPA): www.protectedplanet.net.

AUTHOR CONTRIBUTIONS

All authors developed the concepts and structure of this Perspective and contributed equally to the writing and revisions of the manuscript according to their specific expertise.

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