



SHORT COMMUNICATION TOWARDS A TYPOLOGICAL FRAMEWORK FOR AREA-BASED CONSERVATION

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ABSTRACT

Protected areas and other area-based measures are widely accepted as key elements in biodiversity conservation. However, the diversity and inconsistent usage of terms used to describe these measures have often led to confusion. This has sometimes hampered discussions on their role, including in the Post-2020 Global Biodiversity Framework. Here, we seek to provide some clarification of the most widely used terms describing different measures of area-based conservation by proposing a typological framework. This framework considers three area-based conservation types, which are not mutually exclusive: A. 'Areas dedicated to, and/or achieving, the conservation of nature'; B. 'Areas subject to specific governance and/or management relevant to the conservation of nature'; and C. 'Areas identified as priorities for the conservation of nature'. We hope that this framework will contribute to a better understanding of the different types of area-based conservation and help inform the development of new targets and indicators for the Post-2020 Global Biodiversity Framework.

Key words: protected area, other effective area-based conservation measure (OECM), conservation typology, management, governance, conservation priorities

INTRODUCTION

The establishment of area-based conservation measures, such as protected areas, has been an important element of the Strategic Plan for Biodiversity 2011-2020 (CBD, 2010). The adoption of a Post-2020 Global Biodiversity Framework provides an opportunity to set ambitious new targets for conservation of nature (CBD, 2020). These new goals and targets will be agreed and adopted at the upcoming fifteenth Conference of the Parties to the Convention on Biological Diversity (CBD).

As with the current Strategic Plan's Target 11, protected areas (PAs) and other effective area-based conservation measures (OECMs) are proposed as the focus of Target 2 in the Zero Draft (CBD, 2020), which states: "By 2030, protect and conserve through well connected and effective system of protected areas and other effective area-based conservation measures at least 30 per cent of the planet with the focus on areas particularly important for biodiversity".

Recent studies have shown that a variety of area-based conservation measures are needed to safeguard biodiversity in the terrestrial (e.g. Locke et al., 2019) and marine realms (e.g. Jones et al., 2020). Conservation scientists overwhelmingly consider in-situ conservation to be essential and support large-scale area-based conservation targets, with a focus on PAs in areas identified as important for biodiversity (Visconti et al., 2019; Woodley et al., 2019).

The proliferation of terms used to describe area-based conservation measures has led to some misunderstandings on what is, and should be, reported to the World Database on Protected Areas (WDPA), the primary dataset used to report on Aichi target 11 (WDPA team, pers. comm.). This has led to further confusion over the role of different measures in nature conservation, including in the Post-2020 Global Biodiversity Framework.

Using a common language will help to improve the recognition, reporting and management of area-based

conservation measures, including clarifying which global targets they support. Here we propose a typology of terms that have an agreed definition and are commonly used to describe different types of area-based conservation. Our proposal considers three types of area-based conservation. We describe each type and provide several examples. We conclude by suggesting how a better understanding of these different types could improve their recognition and implementation.

PROPOSED AREA-BASED CONSERVATION TYPOLOGY FRAMEWORK

As detailed below and in Figure 1, we propose three types of area-based conservation measures:

- A. Areas dedicated to, and/or achieving, the conservation of nature;
- B. Areas subject to specific governance and/or management relevant to the conservation of nature; and
- C. Areas identified as priorities for the conservation of nature.

A. Areas dedicated to, and/or achieving, the conservation of nature

This type includes areas that meet the globally agreed definitions of PAs (CBD, 1992; Dudley, 2008; Lopoukhine & Dias, 2012) and other effective area-

based conservation measures (OECMs) (CBD, 2018; IUCN, 2019), the two types included in Aichi Biodiversity Target 11 in the Strategic Plan for Biodiversity 2011-2020. Either term can describe areas under the governance of governments, private actors, indigenous peoples and local communities, or a combination of stakeholders. They may or may not be legally designated.

Protected area (PA)

Multiple international policy processes formally recognise PAs, including the 2030 Agenda for Sustainable Development and the CBD. PAs have been formally defined by the CBD (1992) as “a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives”, and by IUCN as “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” (Dudley, 2008).

There is agreement between the CBD Secretariat and IUCN that the definitions are equivalent (Lopoukhine & Dias, 2012) and they are the definitions used by the World Database on Protected Areas (WDPA). There are, however, over 1,600 different designations from

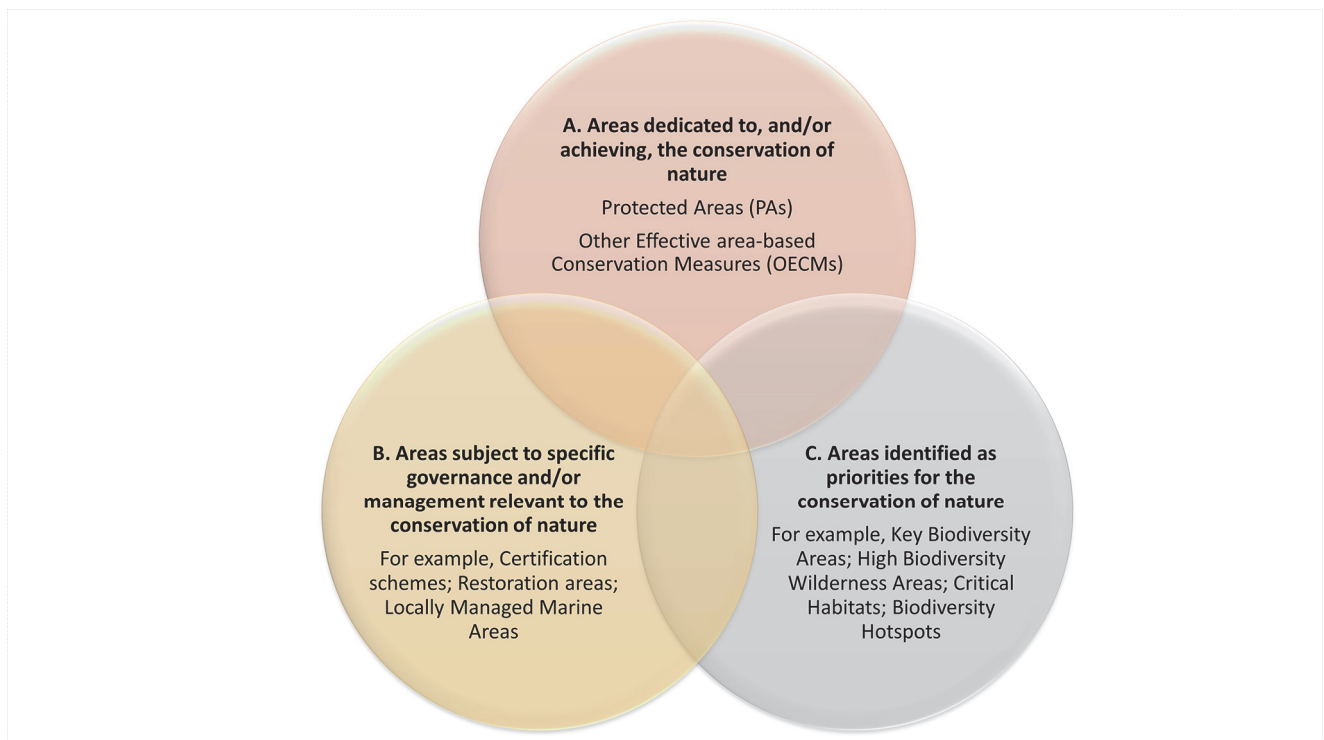


Figure 1. The typological framework proposed aims to clarify the terms commonly used for area-based conservation. These types are not mutually exclusive and may spatially overlap.

international to local level to describe measures that meet these PA definitions, with significant differences in how they are applied between countries. Furthermore, almost a quarter of the world's PAs are protected through more than one spatially overlapping designation (Deguignet et al., 2017).

In 1994, the IUCN General Assembly approved six PA management categories, which classify PAs by their management objectives; these are still in use today. They are: Ia Strict nature reserve, Ib Wilderness area, II National park, III Natural monument and natural feature, IV Habitat and species management area, V: Protected landscape and protected seascape, and VI PA with sustainable use of natural resources. However, there are different interpretations of these categories by countries, and the names associated with each category may be used very differently across countries and may not always correspond to the category as defined by IUCN. For example, PAs called 'national parks' can be found in any of the IUCN categories. Guidance on the correct application is provided in Dudley (2008).

PAs can be under any combination of management categories and governance types (Dudley, 2008), with the latter including governance by government, by private actors, by indigenous peoples and local communities, and shared governance (Borrini-Feyerabend et al., 2013).

The term 'protected and conserved areas' is sometimes used to describe all sites that are, or aim to be, effective in achieving conservation outcomes. Contrary to PAs, which are established with the specific intention of achieving conservation outcomes, 'conserved areas', which still need to be formally defined (Jonas & Jonas, 2019), include a wide range of sites that deliver effective conservation outcomes, but where the area may have been established for other reasons. Included here are those defined by the CBD as OECMs (see below).

Other effective area-based conservation measure (OECM)

A formal definition of OECMs was adopted by the CBD in 2018: "A geographically defined area other than a PA, 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". The World Database on Other Effective Area-based Conservation Measures (WD-OECM) uses this definition as its standard.



Yellowstone National Park, USA, established in 1872 © Elise Belle

While PAs must have nature conservation as their primary objective, OECMs do not necessarily need to. OECMs can be managed for many different objectives, but also have to deliver effective conservation of nature. IUCN (2019) provides practical guidelines for recognising and reporting them.

OECMs can broadly be divided into three kinds:

1. Ancillary: when conservation of nature is a by-product of the area's management;
2. Secondary: when conservation of nature is an objective, but other objectives take priority; and
3. Primary: when an area has conservation of nature as a primary management objective, but its governance authority wishes it to be recognised as an OECM rather than as a PA.

Another type of area-based measure to be considered in the future is ecological corridors. These are areas within ecological networks devoted to ecological connectivity, which can also contribute directly to conservation (Hilty et al., 2020). Guidance was only published recently, meaning that they have yet to be widely taken up, and their position in the typological framework is not yet clear.

B. Areas subject to specific governance and/or management relevant to the conservation of nature

This type refers to various classifications of specific management and/or governance measures with objectives relevant to the conservation of nature, and/or that result in effective conservation. As they are defined from a different starting point, they may be a PA, an OECM, or meet neither definition, and the exact status of any such areas needs to be considered on a case-by-case basis.

Some areas are defined by governance (e.g. ‘Territories of Life’, or ICCAs, are defined in part as areas under the governance of Indigenous peoples or local communities), or management (e.g. ‘restoration areas’ all share restoration objectives but may be under any governance type). Some of these areas, like Territories of Life, always achieve nature conservation, as this is part of how they are defined, as “territories and areas conserved by Indigenous peoples and local communities”. However, not all areas of this type are defined in this way. For example, agricultural sustainability standards do not always contribute to biodiversity conservation (Tayleur et al., 2016).

Examples of areas under specific management and/or governance that have objectives relevant to the conservation of nature include the following:

- Certification Schemes: voluntary schemes for responsible production and consumption often include measures for area-based conservation.
- Locally Managed Marine Areas (LMMA): nearshore waters, coastal and marine resources managed at a local level.
- Restoration areas: areas managed to assist recovery of an ecosystem that has been degraded, damaged or destroyed.
- Sacred Natural Sites (SNS): areas of land and/or water having special spiritual significance to peoples and communities.

C. Areas identified as priorities for the conservation of nature

These are areas identified as important for the conservation of species, ecosystems and/or habitats, based on specific methodologies to inform the area-based conservation measures described under Types A and B. The main methodologies are:

1. Focusing on specific taxonomic groups (e.g. Important Bird Areas, Important Plant Areas);
2. Using a recognised standard set of criteria (e.g. Key Biodiversity Areas, Ecologically or Biologically Significant Marine Areas); and
3. Applying systematic conservation planning methods (e.g. High-Biodiversity Wilderness Areas).

The identification of their importance is irrespective of the management or governance structures in place. These methodologies are used to identify priorities for conservation. Such areas may overlap spatially with PAs or OECMs (e.g. Jones et al., 2020; Donald et al., 2019). Certain designations can have implications for how an area is managed and/or governed. However, their identification does not imply the existence of any conservation measures.

Examples of areas identified as priorities for the conservation of nature include the following, in alphabetical order (all definitions can be found at www.biodiversitya-z.org):

- Alliance for Zero Extinction (AZE): sites containing the entire population of species listed as endangered or critically endangered on the IUCN Red List of Threatened Species.
- Biodiversity Hotspots: large regions containing exceptional concentrations of plant endemism and experiencing high rates of habitat loss.
- Centres for Plant Diversity (CPD): large regions of global botanical importance based on their endemism and species richness.
- Ecologically or Biologically Significant Marine Areas (EBSA): areas supporting the healthy functioning of oceans and the services they provide.
- Global 200 priority ecoregions: biogeographical regions of the highest importance for conserving the most outstanding and representative subset of the world’s habitats.



Bolong Fenyo Community Wildlife Reserve, a Territory of Life located in The Gambia © Elise Belle

- High-Biodiversity Wilderness Areas (HBWA): large intact ecosystems holding significant levels of global biodiversity.
- High Conservation Value Areas (HCVA): areas designated on the basis of their outstanding biological, ecological, social or cultural values.
- Important Marine Mammal Areas (IMMA): discrete portions of habitat important to marine mammal species that can be delineated and managed for conservation.
- Intact Forest Landscapes (IFL): large mosaics of forest and naturally treeless ecosystems which show no signs of human activity or habitat fragmentation.
- Key Biodiversity Areas (KBA): sites contributing significantly to the global persistence of biodiversity.

CONCLUSION AND RECOMMENDATIONS

The recent increase in terms used to describe various types of and concepts linked to area-based conservation has created confusion. One common misconception arises from the fact that different types of area-based conservation often overlap spatially. It is therefore important to note that the different types defined here are not mutually exclusive. They may also exist at varying levels of implementation, from proposals and commitments to fully implemented and actively managed areas.

We hope that this proposed typological framework will stimulate discussions and contribute to improving understanding of the different types of area-based conservation. This should support implementation of international conventions and programmes focused on biodiversity issues, including the CBD, Ramsar Convention and UNESCO Man and Biosphere (MAB) Programme. It could therefore provide an opportunity to improve how sites are designated, monitored and reported, and contribute to ensuring consistency in development of future targets and indicators.

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RESUMEN

Las áreas protegidas y otras medidas basadas en áreas son ampliamente aceptadas como elementos clave para la conservación de la biodiversidad. Sin embargo, la diversidad y el uso inconsistente de los términos utilizados para describir esas medidas a menudo han generado confusión. En ocasiones esto ha obstaculizado los debates sobre su función, incluso en el Marco global para la biodiversidad post-2020. En el presente documento se procura aclarar los términos más utilizados para describir las diferentes medidas de conservación basadas en áreas, mediante el planteamiento de un marco tipológico. Este marco considera tres tipos de conservación basada en áreas, que no son mutuamente excluyentes: A. "Áreas dedicadas a la conservación de la naturaleza y/o su consecución"; B. "Áreas sujetas a una gobernanza y/o gestión específicas relacionadas con la conservación de la naturaleza"; y C. "Áreas identificadas como prioritarias para la conservación de la naturaleza". Confiamos en que este marco contribuya a una mejor comprensión de los diferentes tipos de conservación basada en áreas y que ayude a fundamentar la elaboración de nuevas metas e indicadores para el Marco global para la biodiversidad post-2020.

RÉSUMÉ

Les aires protégées et les autres mesures par zone sont largement acceptées comme éléments clés de la conservation de la biodiversité. Cependant, la diversité et l'utilisation incohérente des termes utilisés pour décrire ces mesures ont souvent généré de la confusion. Cela a parfois entravé les discussions sur leur rôle, y compris dans le Cadre Mondial de la Biodiversité pour l'après-2020. Nous cherchons ici à clarifier les termes les plus couramment utilisés pour décrire différentes mesures de conservation par zone en proposant un cadre typologique. Ce cadre prend en compte trois types de conservation par zone, qui ne s'excluent pas mutuellement. A. «Aires dédiées à la conservation de la nature et/ou réalisant cette conservation»; B. «Aires soumises à une gouvernance spécifique et/ou à une gestion en rapport avec la conservation de la nature»; et C. «Aires identifiées comme prioritaires pour la conservation de la nature». Nous espérons que ce cadre contribuera à une meilleure compréhension des différents types de conservation par zone et pourra servir à orienter l'élaboration de nouveaux objectifs et indicateurs pour le Cadre Mondial de la Biodiversité pour l'après-2020.