



Convention on  
Biological Diversity



WCMC



# CREATING A NATURE- POSITIVE FUTURE

THE CONTRIBUTION OF PROTECTED AREAS AND OTHER  
EFFECTIVE AREA-BASED CONSERVATION MEASURES

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## FOREWORD



We are in the midst of a global biodiversity crisis. Biodiversity and its contributions to people are increasingly under threat from changes in land and sea use and direct exploitation, among other direct drivers like climate change whose impacts are increasing. A majority of Earth's land and sea areas have now been significantly altered by human activities and as many as 25 per cent of species are threatened with extinction unless we address the drivers of biodiversity loss.

Protected and conserved areas are a cornerstone of biodiversity conservation, as recognised by Parties to the Convention on Biological Diversity. If well planned and designed as well as effectively and equitably managed, protected and conserved areas can play an important role in addressing many of the drivers of biodiversity loss. By maintaining intact biodiverse ecosystems, they can also sustain many of nature's contributions to people by supporting sustainable livelihoods, health, food, and water security, as well as climate change mitigation and adaptation and disaster risk reduction.

Aichi Biodiversity Target 11, focused on increasing the coverage and quality of protected and conserved areas, is among the most successful targets of the Strategic Plan for Biodiversity 2011-2020. Parties succeeded in increasing global coverage by more than 21 million km<sup>2</sup> over the last decade. This incredible growth in the coverage of protected and conserved areas represents an outstanding achievement. However, for maintaining ecological functions and supporting nature's contributions to people, more focus will be needed on the quality of protected and conserved areas. There is a need for better representation, increased emphasis on areas important for biodiversity and its contributions to people, improvement in management effectiveness, equity, and conservation outcomes, and a focus on connectivity and integration into wider landscapes and seascapes, as well as mainstreaming into key sectors, national plans and policies.

As Parties prepare to adopt the post-2020 global biodiversity framework, it is important to reflect on and learn from the progress made towards the achievement of Aichi Biodiversity Targets. For protected and conserved areas, this will require a greater focus on all of the quality elements (e.g., representation, connectivity, areas important for biodiversity), especially for those areas where

progress has been lower or where appropriate indicators are still lacking. For instance, there is still a lack of global data for tracking management effectiveness, equity, and conservation outcomes in protected and conserved areas. These are important considerations for the development of the monitoring and reporting framework set to be adopted alongside the new global biodiversity framework.

This report presents an overview of the global status of the elements of Target 11, as the process for negotiating the post-2020 global biodiversity framework continues, pursuant to various decisions of the Conference of the Parties to the Convention (including decisions XII/2 and XIV/8). It discusses the potential benefits of protected and conserved areas for livelihoods, water, and food security, and as nature-based solutions for climate mitigation and disaster risk reduction. It also outlines some important considerations for more effective and equitable protected and conserved areas.

Successful achievement of ambitious targets for protected and conserved areas would help pave the pathway to the achievement of the post-2020 global biodiversity framework. It would also make major contributions to the Sustainable Development Goals and set us on a path towards achieving the 2050 Vision of "Living in harmony with nature".

**Elizabeth Maruma Mrema**

Executive Secretary

Secretariat of the Convention on Biological Diversity

## FOREWORD



Protected and conserved areas are the foundation for conserving biodiversity. To date, %16.65 of land and %7.74 of marine areas are reported as protected and conserved areas worldwide, a remarkable achievement, given that 42 percent of these areas – more than 21 million square kilometers – has been added just in the last decade.

This is good news for biodiversity, which is facing unprecedented pressure around the globe. But it is also good news for the future of our planet, and for humanity. Protected and conserved areas are essential for achieving the world's climate and sustainable development goals. These areas safeguard the world's water supplies, supporting the livelihoods of millions of people, and protecting communities from natural disasters. Moreover, by helping to avoid the loss and degradation of forests, peatlands and other carbon-rich ecosystems, protected and conserved areas are essential if we are to achieve our climate goals.

The economic arguments for continuing to invest in nature, including in protected and conserved areas, are clear. The benefits of protecting nature outweigh the costs by at least five to one. The current economic value of protected areas is estimated at about US 6\$ trillion annually, and this figure is likely to rise as intact ecosystems become increasingly important for climate resilience and adaptation. Never has the recognition of diverse forms of conservation been so important to achieve global biodiversity, climate change and sustainable development ambitions.

The emerging post2020- Global Biodiversity Framework, and groups such as the High Ambition Coalition for Nature and People, point toward an ambitious goal of protecting %30 of the planet by 2030. Achieving this goal is not unimaginable, especially if governments focus on safeguarding the land rights of Indigenous peoples, who manage more than a third of the planet. But we must also consider issues such as ecoregional representativeness, connectivity, equity and effective management. Moreover, new protected and conserved areas will increasingly need to focus on

essential ecosystem services, including water, carbon storage and climate resilience. This report presents clear opportunities for the role of protected and conserved areas to help create a nature-positive future.

A handwritten signature in black ink, reading "Achim Steiner". The signature is fluid and cursive.

**Achim Steiner**

Administrator

United Nations Development Programme

# EXECUTIVE SUMMARY

## I. Nature-positive future and the contribution of protected areas and other effective area-based conservation measures

Protected areas (PAs) are essential tools for biodiversity conservation. The last decade has seen the incredible growth in the coverage of the global PA network, making significant progress towards the coverage aspects of Aichi Biodiversity Target 11. Area-based conservation is recognized as a crucial component for achieving a nature positive future, for the resilience of the planet and biodiversity, as well as for humanity. Now, the process for developing the post-2020 Global Biodiversity Framework is underway, with the framework set to be adopted at the fifteenth meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity, with a 2050 vision of “living in harmony with nature”.

To meet the post-2020 biodiversity goals and targets, the contribution of other effective area-based conservation measures (OECMs) and the lands that are collectively held and used by Indigenous Peoples and Local Communities (IPLCs) will be essential. A definition of OECMs was adopted at the fourteenth meeting of the COP, along with scientific and technical advice on the criteria for their identification. There is also now increasing evidence of the significant benefits provided by IPLCs territories, lands and waters. This is the opportunity to identify and fully recognize these sites outside of formally protected areas for their important contribution to global conservation efforts.

Improving the coverage and quality of PAs and OECMs will supply significant direct benefits and co-benefits, providing fundamental support for achieving the 2030 Sustainable Development Goals (SDGs), including poverty alleviation (SDG 1), food security (SDG 2), good health and well-being (SDG 3), water security (SDG 6), sustainable livelihoods and economic growth (SDG 8), life below water (SDG 14), and life on land (SDG 15). PAs and OECMs, through ecosystem-based approaches, further contribute to climate change mitigation and adaptation and for disaster risk reduction, providing substantial benefits for the Paris Agreement (and SDG 13) and the Sendai Framework for Disaster Risk Reduction.

## II. Protected areas and other effective area-based conservation measures: Current status and opportunities for action

### Terrestrial and marine coverage

- **Status:** As of May 2021<sup>1</sup>, PAs and OECMs cover 16.65% of the non-Antarctic land area. Marine and coastal PAs and OECMs cover 7.74% of the ocean, reaching 18% coverage when considering only marine areas under national jurisdiction. Landmark data indicates that IPLCs lands in 31

countries cover almost 10% of non-Antarctic land areas and 0.7% of coastal and marine areas, though estimates for the total coverage of IPLCs territories, lands, and waters are much higher.

- **Opportunities for action:** 26 Parties are in the process of updating their data in the WDPA or WD-OECM, with many more planning to do so in the coming months. Efforts are needed to identify any unreported PAs and to recognize OECMs and report these sites in the appropriate global database. In the future, as new PAs and OECMs are planned, focus could be given to intact areas that are not currently protected, while addressing the remaining quality elements. The establishment of new PAs and OECMs should be done in a participatory way that is respectful of the rights of IPLCs and stakeholders.

### Ecological representativeness

- **Status:** Globally there are 826 non-Antarctic terrestrial ecoregions, 232 marine ecoregions and 37 pelagic provinces. Of these 43.7% of terrestrial ecoregions (361) have at least 17% coverage from reported PAs and OECMs, while 47.4% of marine ecoregions (110) and 10.8% of pelagic provinces (4) have at least 10% coverage. Half of terrestrial ecoregions overlap with IPLCs lands recognized by governments in 31 countries.
- **Opportunities for action:** increase protection in terrestrial and marine ecoregions and pelagic provinces that have lower levels of coverage by PAs and OECMs, such as the 104 terrestrial ecoregions, 77 marine ecoregions and 13 pelagic provinces which currently have less than 3% protection.

### Areas important for biodiversity

- **Status:** Globally there are 16,343 Key Biodiversity Areas (KBAs) and 591 Ecologically or Biologically Significant Marine Areas (EBSAs); mean coverage by PAs and OECMs is 43.3% and 8.3%, respectively. There are 1,240 KBAs, which overlap with IPLCs lands acknowledged by governments.
- **Opportunities for action:** increase protection of KBAs; priority could be given to the 6,298 KBAs, which have <2% coverage from reported PAs and OECMs.

### Areas Important for Ecosystem Services

- **Status:** Globally, 24.57% of global aboveground biomass, 20.86% of global belowground biomass, 15.44% of soil organic carbon and 7.07% of marine sediment carbon are held within reported PAs and OECMs. More than 10% of total terrestrial biomass carbon is stored in IPLCs lands, including those both acknowledged and not acknowledged by governments. The average protection of watershed catchments in 19 geographic sub-regions is 21.9%; values for individual sub-regions range from 2.9% to 56.7%.
- **Opportunities for action:** develop or identify indicators that will help assess the conservation of areas important for ecosystem services. For carbon, increasing PA and OECM coverage in marine and terrestrial areas with high carbon stocks, and improving the management of all sites,

<sup>1</sup> The latest statistics are available at [www.protectedplanet.net](http://www.protectedplanet.net)

would help secure the benefits of carbon sequestration. For freshwater resources, improving the protection of watersheds and forest cover and reducing forest losses within catchments can provide significant benefits for water supply and water quality as well as stormwater management and disaster risk reduction.

### Connectivity and Integration

- **Status:** As of January 2021, global coverage of protected-connected lands (including OECMs) is 7.84%. Based on a different indicator for connectivity (the PARC-Connectedness Index) global connectivity of terrestrial PAs in 2019 was 0.51 (on a scale of 0-1). To date, there is no global assessment of the connectivity of marine PAs and OECMs.
- **Opportunities for action:** increase coverage of PAs and OECMs to reduce the impacts of fragmentation; where connectivity is already high, focus could be given to PA and OECM management for enhancing and maintaining connectivity. Restoration and improved management of unprotected areas may also be needed to secure the benefits of PAs and OECMs.

### Equitable governance

- **Status:** Currently, 84.0% of reported PAs are governed by governments, 1.8% under shared governance, 6.8% under private governance, and 0.5% under IPLCs governance (the remainder do not have their governance type reported). For OECMs, this is 64.5% government, 21.6% shared, 3.2% private, 1.7% IPLCs.
- **Opportunities for action:** increase reporting for PAs and OECMs under shared and IPLCs governance, with the consent of custodians. As simple assessments of governance diversity provide limited insight into PA and OECM equity, increased efforts to collect data on governance quality, equity and the social impacts of area-based conservation are needed.

### Protected Area Management Effectiveness

- **Status:** As of May 2021<sup>2</sup>, 4.5% of the area of terrestrial PAs and 14.0% of the area of marine and coastal PAs within national waters have completed Protected Area Management Effectiveness assessments reported. A total of 42 CBD Parties have surpassed the 60% target for completed management effectiveness assessments for terrestrial PAs; 30 Parties have met the target for marine PAs.
- **Opportunities for action:** increase the completion and reporting of management effectiveness evaluations for both terrestrial and marine PAs and OECMs. As simply reporting on completed evaluations is not adequate, efforts should be made to ensure effective management is being implemented and achieved and biodiversity outcomes are being monitored.

<sup>2</sup> Latest statistics are available at [www.protectedplanet.net](http://www.protectedplanet.net)

### National commitments, policies and projects

Parties have committed to increasing PA and OECM coverage throughout the last decade, and if completed as planned, these commitments could further increase global coverage by millions of km<sup>2</sup> and provide benefits for other elements of quality. An analysis of 356 approved GEF-5 and GEF-6 projects from 131 countries, indicated that on average, each project benefited 4-5 elements of Aichi Biodiversity Target 11, primarily equitable governance and integration into the wider landscape and seascape. For 65 Green Climate Fund (GCF) projects, the contribution was primarily to integration into the wider landscape and seascape and management effectiveness. A separate analysis of 1,043 policy documents, from 51 countries, on nature, climate and sustainable development with potential links to Target 11, showed that policies most often focused on climate mitigation and ecosystem integrity.

### III. The benefits of protected areas and other effective area-based conservation measures

Effectively managed and equitably governed PAs and OECMs can improve biodiversity conservation as well as provide a vast range of other co-benefits. Direct biodiversity benefits include increased species richness and abundance (Gray et al., 2016) and a decrease in risk of extinction. The global increase in marine PA and OECM coverage over the last decade has significantly improved the coverage of reef-forming corals, as well as the coverage of threatened mangroves, seagrasses, marine mammals and bony fish (Maxwell et al., 2020).

Some of the most important co-benefits provided by PAs and OECMs relate to the provision of ecosystem-based approaches to climate change mitigation and disaster risk reduction. The protection and restoration of ecosystems provides significant carbon sinks and could provide a significant portion of the emission reductions necessary to stabilize warming below 2°C (Griscom et al., 2017). Healthy and intact ecosystems can help reduce disaster risk. Mangroves and coral reefs provide a significant reduction in the damage inflicted on communities from extreme weather events such as flooding and storms (Mercer and Salem, 2012), riparian and coastal vegetation stabilizes shorelines and riverbanks with erosion control (Ruitenbeek, 1992) and intact forested mountains and slopes can protect from landslides and avalanches by stabilizing sediments (Dudley et al., 2015).

PAs and OECMs protecting ecosystems that are a vital source of clean water will also increase water security. Restoration and protection of ecosystems can improve water retention and groundwater recharge, and ecosystems such as wetlands and forests can improve the water quality. PAs and OECMs are critical in the protection of pollinator populations, providing an essential contribution to food security (Klein et al., 2007). They allow fish populations to regenerate, which would have significant benefits for the billions of people who rely on fish as a major source of protein (FAO, 2016). Nature-based tourism in PAs provides significant economic benefits and contributes to sustaining livelihoods; while PAs and OECMs also have been shown to provide mental health benefits (Buckley et al., 2019). As a major portion of the world's total gross domestic product is highly or moderately dependent on nature and its services (WEF, 2020), PAs and OECMs are essential.

**Figure 1. The direct benefits and co-benefits provided by PAs and OECMs and the contribution of these towards the Sustainable Development Goals.**



#### IV. Envisioning a nature-positive future: Takeaways for more effective and equitable protected areas and other effective area-based conservation measures

To achieve a nature-positive future, improving the quality of PAs and OECMs will be required. To

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actions must be supported with improvements in effective management and appropriate equity and governance measures. A shift is necessary away from focusing solely on the quantity of PAs and OECMs, to ensure that existing and new sites are effectively managed and equitably governed for the protection of biodiversity and delivery of other benefits and co-benefits. To do so, new approaches for the assessment of site performance may need to be developed and adopted. Monitoring and assessing progress on equitable governance is currently limited but must be a focus in the coming decade. This will ensure the acknowledgement and recognition of rights and values of various actors, to enhance inclusion in decision-making for improved transparency and accountability, and to improve the equitable sharing of benefits and costs.

Ensuring that PAs and OECMs are well-governed and equitable will require recognition of the contribution of IPLCs' territories, lands and waters. Any increase in PA and OECM coverage through recognizing the existing management of IPLCs, must be implemented with IPLCs consent, respect for their rights, and should be accompanied by appropriate recognition and support. It is estimated that IPLCs are stewards of at least 32% to 65% of the world's land area; however, recognition of their rights to this land is currently severely lacking, despite already making vast contributions to global conservation efforts and other international targets (Rights and Resources Initiative, 2015). Whilst recognition of these lands and human rights has improved in recent years, the importance of equitable procedures, distribution, and recognition in PAs and OECMs is critical for the post-2020 Global Biodiversity Framework to be achieved.

Finally, it is essential to integrate area-based conservation into national policies and decision-making frameworks, as well as sectoral plans and strategies. This process of mainstreaming biodiversity conservation will ensure the contribution of PAs and OECMs to addressing climate targets and sustainable development outcomes in addition to addressing the biodiversity crisis, as discussed in chapter 4. These efforts may also involve various spatial scales (local to global) and will rely on strong science-based biophysical and socio-economic data. An example of this approach is presented with the Essential Life Support Areas (ELSA) project in Costa Rica.

In conclusion, with hopes to achieve a nature-positive future, this report outlines the need for scaling up equitable, representative, and effective PAs and OECMs to halt and reverse the continuing loss of global biodiversity, and reap the extensive range of direct benefits and co-benefits outlined in this report. For this to be achieved, it is crucial that focus moves beyond just expanding PA and OECM coverage, towards ensuring sites are ecologically representative and well-connected, and giving greater focus to equitable governance and the achievement of conservation outcomes through effective management, all embedded within a rights-based approach. The delivery of a greater range of benefits will be possible through embedding area-based conservation in global, national and local policies and frameworks, alongside increased and sustained financial support and capacity development. As countries prepare to negotiate and adopt a new Global Biodiversity Framework, there is pressure to ensure that this adequately responds to the pressing issues of our time, such as continuing biodiversity loss, impacts of climate change and growing socio-economic inequality. With concerted efforts and consideration of the issues outlined in this report, we can collectively implement the transformative changes necessary to achieve the 2050 Vision of living in harmony with nature.