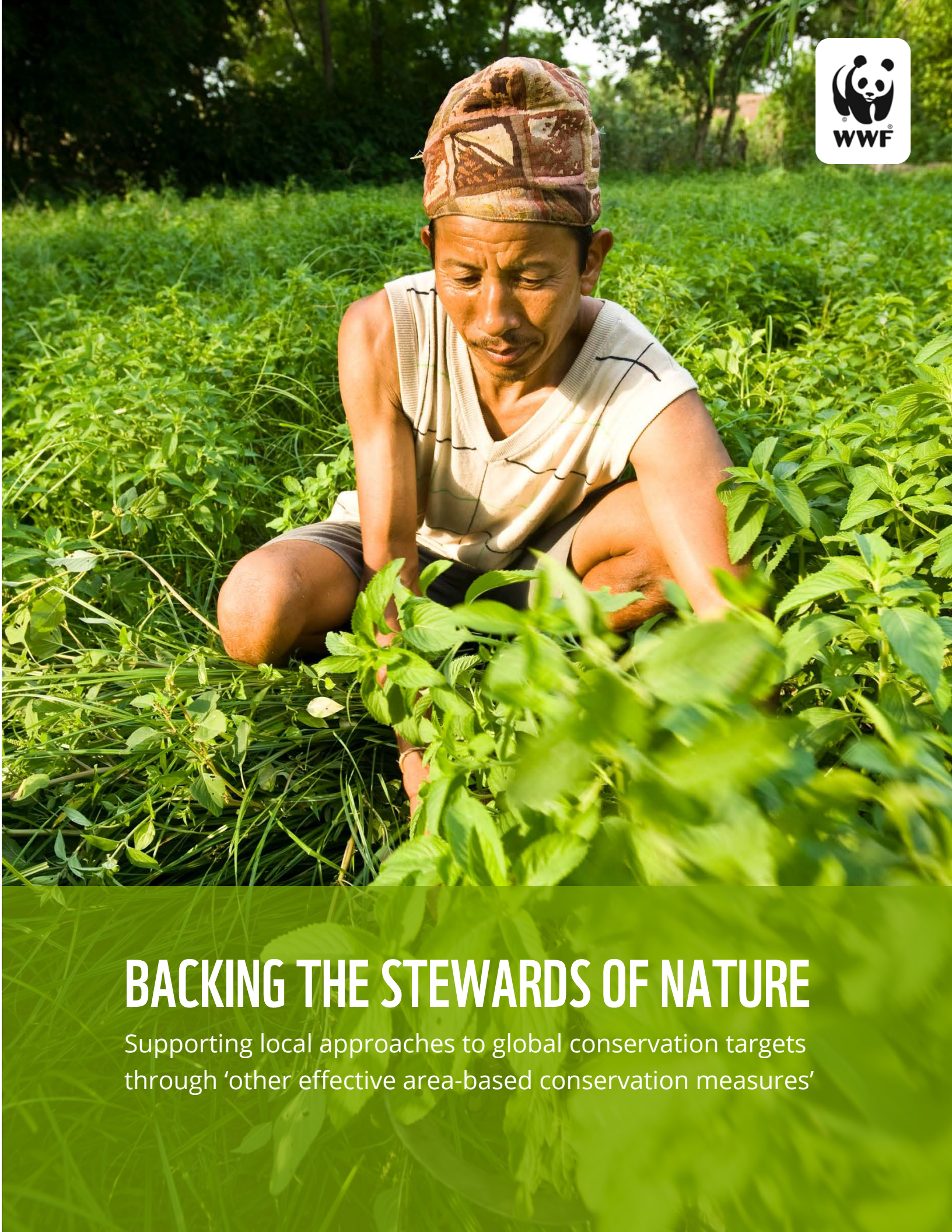

BACKING THE STEWARDS OF NATURE

Supporting local approaches to global conservation targets through 'other effective area-based conservation measures'

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CITATION:
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COVER IMAGE:
Ram Swarup (54) weeding his crop of mint (Mentha arbensis). WWF's Terai Arc Landscape (TAL) program introduced the idea of mentha farming in order to reduce human/wildlife conflict and to increase a farmer's income through greater profit margins and allowing them to grow crops during the off season. Lamahai, western Terai, Nepal. © Simon de Trey-White / WWF-UK

Acronyms

CBD	Convention on Biological Diversity
CSA	Conservation South Africa
EBSA	Ecologically or Biologically Significant Marine Areas
ECMPO	Coastal Indigenous People Space
EFL	Earth for Life
ERC	Ecosystem Restoration Concession
ESG	Environment, social and governance
FPIC	Free, prior, and informed consent
FRZ	Fishing Refuge Zones
HCV	High conservation value
IAG	IamGurgaon
IBA	Important Bird Area
IMMA	Important Marine Mammal Areas
IPA	Important Plant Area
IUCN WCPA	International Union for Conservation of Nature World Commission on Protected Areas
KAZA	Kavango- Zambezi Transfrontier Conservation Area
KBA	Key Biodiversity Area
LMMA	Locally managed marine area
MCG	Municipal corporation of Gurugram
MOOC	Massive online open online course
OECM	Other effective area-based conservation measure
PADDD	Protected area downgrading, downsizing, and degazettement
SAPAD	South Africa Protected Areas Database
UNDP	United Nations Development Programme
UNEP WCMC	UN Environment Programme World Conservation Monitoring Centre
WD-OECMs	World Database on Other Effective Area-Based Conservation Measures
WDPA	World Databased on Protected Areas

EXECUTIVE SUMMARY

As part of WWF-US's contributions to bend the curve on biodiversity and achieve the ambitious agenda of conserving 30% of the earth by 2030, we must augment our focus on protected areas by engaging with conservation efforts occurring across landscapes, seascapes and river basins. A new international framework, referred to as 'other effective area-based conservation measures', is enabling us to support diverse stewards of nature—including Indigenous and non-Indigenous farmers, fishers, foresters, forest users and pastoralists—in ways that complement and help connect protected areas worldwide. This report elaborates the opportunities and challenges offered by the framework and sets out a series of actions that we are planning to take to provide global leadership at this critical time.

In 2018, Parties to the Convention on Biological Diversity (CBD) agreed on a definition and criteria for areas that deliver the long-term conservation of biodiversity outside of protected areas, referred to as 'other effective area-based conservation measures' (OECMs).[1] OECMs are governed by government agencies, private individuals, sectoral actors - such as farmers, fishers, foresters, and pastoralists, and/or by Indigenous peoples and local communities. They can include areas as diverse as sacred and cultural sites, watershed protection areas, riparian reserves, wetlands, grasslands, intact forests, fishery closures and war graves. OECMs complement protected areas across landscapes, seascapes and river basins by conserving important biodiversity, ecological functions, and ecosystem services, promoting ecological connectivity between sites and across conservation networks, and contributing to climate resilience.

The pace at which countries are reporting OECMs is intensifying. Since 2018, 665 sites have been reported to the World Database on OECM across eight countries and territories. OECMs now cover 1,764,000 km^2 of the Earth's surface, an area almost the same size as Mexico's landmass, accounting for 1,447,000 km^2 of land and freshwater and 317,000 km^2 of coasts and oceans. The contribution of OECMs to total national terrestrial conservation network coverage is substantial for several countries and territories, most notably Morocco and Algeria, where OECMs provide over 90% of the total coverage. In the marine realm, OECMs also contribute to total coverage, for example accounting for over 50% of the Philippines' marine conservation networks. The addition of OECMs to countries' conservation networks

[1] An 'other effective area-based conservation measure' is defined by the Convention on Biological Diversity 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).

has had a positive impact on ecological representativity and coverage of Key Biodiversity Areas. Our findings demonstrate the important conservation contributions made by OECMs. They also underscore the need to move beyond the identification and reporting of OECMs toward providing additional and appropriate recognition and support to the stewards of these places.

Parties to the CBD are currently negotiating the Global Biodiversity Framework, which includes Target 3 on area-based conservation. The current draft of Target 3 calls for the conservation of 30% of the planet through "well-connected systems of protected areas and other effective area-based conservation measures." The direct reference to OECMs alongside protected areas in an ambitious conservation target has placed the OECM framework in the international spotlight, raising hopes for the globally significant opportunities it offers while also leading to scrutiny.

In terms of opportunities, the OECM framework embraces human interaction with landscapes, seascapes and river basins in ways that generate conservation outcomes, including through local stewardship, nature-based livelihoods, and other sustainable uses of nature. The framework enables a) social opportunities, enhanced inclusion, recognition and appropriate support, through rights-based approaches, for diverse stewards of nature; and b) enhanced support for the effective, long-term conservation of important biodiversity values and the promotion of locally led initiatives that conserve ecosystem functions and services, and promote ecological connectivity, representativity and climate resilience. However, the global scale of the opportunities is matched by significant challenges. These include questions about how best to ensure that any OECM-related activities are rights-based, adequately measure and monitor conservation effectiveness across highly diverse countries and sites, and verify that sites being reported internationally meet the social and ecological criteria established by the CBD. The scale of these challenges is compounded by worldwide OECM-related knowledge and capacity gaps that exist across all relevant rights holders and stakeholders.

The ways in which the opportunities and challenges presented by the OECM framework are addressed, and the precedents and trajectories that are subsequently established, constitutes one of the most pressing agendas in conservation today, the results of which will have significant ramifications for area-based conservation for the rest of the century. The next ten years is a critical time frame.

In response to the advent of the OECM framework as well as the broader advancements in protected area law, policy and practice, WWF-US has established the Conservation Areas Initiative. The Conservation Areas Initiative places renewed emphasis on advancing inclusive and effective area-based conservation worldwide. Our strategy reflects the new

‘conservation areas paradigm’ and promotes the conservation of biodiversity and nature’s contributions to people, with a much greater focus on partnering with nature’s stewards and focusing on areas with high biodiversity value within and outside protected areas, especially areas managed by Indigenous peoples, local communities, fishers, farmers, foresters, forest users, and pastoralists. We are taking an inclusive, equitable, rights-based approach that considers current and future conditions in landscapes, seascapes and river basins, and draws upon Indigenous, local, and Western knowledge systems through innovative methodologies.

WWF-US has an opportunity to provide global leadership on OECMs and generate local to national impact in our priority places. Coordinated by the Conservation Areas Initiative, and delivered by our Goal Teams and Country Offices, we plan to:

1. support inclusive engagement of diverse rights holders and stakeholders,
2. enhance enabling conditions at local, national and international levels, and
3. enable financial flows to the stewards of nature and their partners.

We should carry out these activities as ‘critical proponents’ of OECMs, building partnerships and engaging in activities to promote appropriate engagement with the framework while also remaining critical of the framework’s weaknesses and being prepared to engage diplomatically with bad practice.

This report challenges us to confront significant questions about the role we should play in the context of the conservation areas paradigm and how best to support local approaches to global conservation targets. It requires a robust, deliberate and transformative response from WWF-US.

Fishermen fish near a fish conservation zone (no-take zone) in Bueng Khong Long. Through the HSBC Water Programme, WWF-Thailand works with communities around Bueng Khlong Long and the Nam Mao River to sustainably manage their water and fisheries. © Kelsey Hartman / WWF-Greater Mekong

1 INTRODUCTION

FROM NATIONAL PARKS TO THE CONSERVATION AREAS PARADIGM

Area-based conservation is experiencing a Copernican revolution. The 20th century was marked by a rapid increase in the number of protected areas, the majority of which were governed by government agencies, but that also included a small but growing number of privately protected areas. Since the World Parks Congress in Durban in 2003, the 'new paradigm for protected areas' has placed more emphasis on the rights of Indigenous peoples and local communities (IUCN, 2003), and has been matched by an ever-increasing recognition of the significant contribution that Indigenous and non-Indigenous farmers, fishers, foresters, forest users, and pastoralists can make to the conservation and sustainable use of biodiversity through their culturally distinct ways of life (WWF et al., 2021). Analyses of the effectiveness and ecosystem coverage of existing protected areas, and the levels of connectivity between protected areas, led to a greater focus on management effectiveness and on designing conservation systems to account for ecological representativity and connectivity. The effects of climate change on people and nature intensified during this period, requiring a direct response by conservation planners. These shifts have resulted in an evolution of protected area law, policy and practice from a more singular focus on government-run national parks to a more diversified and complex engagement with a range of socio-economic, ecological and climatic issues (see **Figure 1**)[2]. Today, there are 269,673 protected areas worldwide, covering 15.73% of global terrestrial and freshwater areas and 7.93% of coastal and marine areas. Despite these developments and the increase in the spatial coverage of protected areas worldwide, biodiversity is still being lost at unprecedented rates (IPBES, 2019).

Despite the significance of the evolution of the protected area paradigm, recent events at the UN level will likely have a greater impact on the future nature and trajectory of area-based conservation. In 2018, Parties to the Convention on Biological Diversity (CBD) agreed on a definition and criteria for areas outside protected areas that deliver the long-term in situ conservation of biodiversity, referred to as other effective area-based conservation

[2] This includes a growing focus on governance by private entities, Indigenous peoples and local communities; cultural, spiritual, and other locally relevant values; inclusive processes that ensure respect for rights and locally defined responsibilities; management and conservation effectiveness; ecosystem services, livelihoods, and benefits for people; ecological representativity and connectivity across systems of protected areas, integrated within landscapes, seascapes, and river basins; and climate resilience based on present and future conditions.

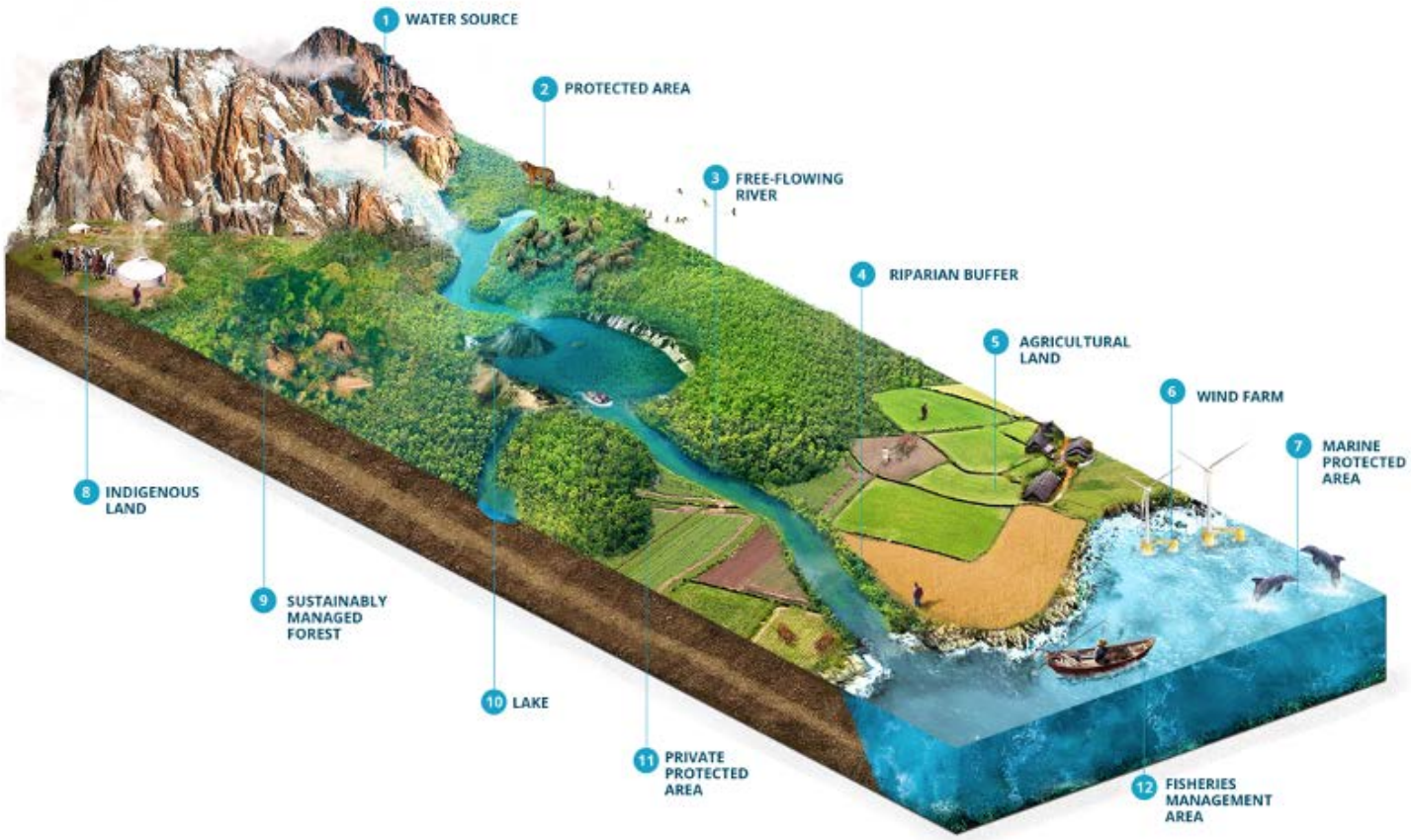

***Figure 1**: Protected area law, policy, and practice have evolved over the past 20 years to engage more explicitly with social, ecological, and climatic systems across landscapes, seascapes, and river basins*

measures (OECMs) (see **Figure 2**).[3] To date, eight countries have identified and reported 665 sites as meeting the OECM criteria; these sites cover 1,764,000 km2 of the Earth's surface, accounting for 1,447,000 km2 of terrestrial and freshwater areas and 317,000 km2 of coastal and marine areas. While already constituting significant spatial coverage, the OECM framework is about to experience a marked increase in global engagement due to the fact that draft Target 3 of the Global Biodiversity Framework calls for the conservation of 30% of the planet through "well-connected systems of protected areas and other effective area-based conservation measures." The reference to OECMs in an ambitious global biodiversity target, coupled with the fact that many countries are finding it challenging to designate further protected areas, particularly terrestrial, will generate intense worldwide focus on the OECM framework for at least the next decade. The advent of the OECM framework is enabling increased and more appropriate recognition and support for globally important sites and the diverse people and groups who steward them—including Indigenous and non-Indigenous farmers, foresters, forest users, fishers, and pastoralists—in ways that

[3] For more on OECMs, please see the IUCN WCPA Specialist Group on OECMs: iucn.org/commissions/world-commission-protected-areas/our-work/oecms.

complement and connect protected areas across landscapes, seascapes, and river basins. These include places as diverse as sacred and cultural sites, government-managed watershed protection areas, territories and areas governed by Indigenous peoples and local communities, riparian reserves that buffer oil palm plantations from rivers, set-asides and wetlands within forestry plantations and infrastructure projects, grasslands managed by ranchers, fishery closures, military areas, and war graves. But as 193 Parties to the CBD begin to engage with the OECM framework, the local-to-global opportunities are matched by equally significant questions, challenges and concerns.

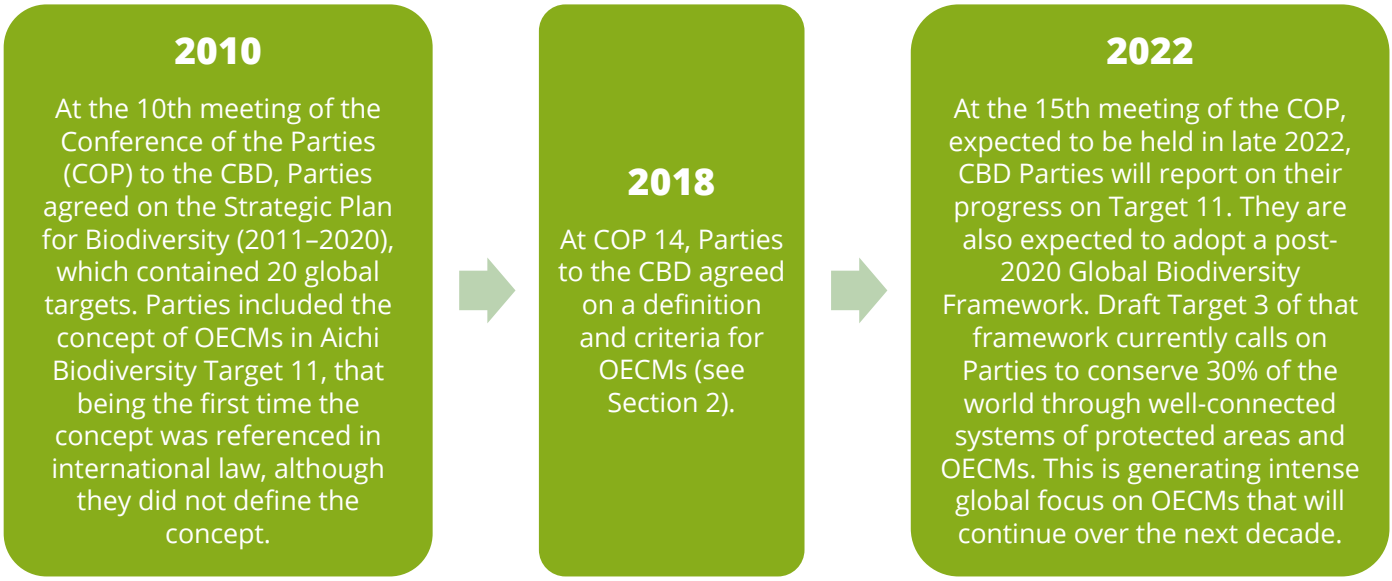

Figure 2: *OECMs and the Post-2020 Global Biodiversity Framework: A Timeline*

Section 2 presents an overview of the definition of, criteria for, and emerging international guidance on OECMs, and explains the distinction between and complementarity of OECMs and protected areas. **Section 3** presents the first comprehensive analysis of the world's initial 665 OECMs, undertaken with the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC). With reference to this analysis and nine country case studies, **Section 4** explores the opportunities and challenges offered by the OECM framework and analyzes a set of emerging issues that require urgent collective consideration. **Section 5** concludes the report, suggesting that the OECM framework offers WWF-US an opportunity to provide global, transformative leadership. We plan to support inclusive engagement with OECMs in our priority places; enhance enabling conditions at local, national and international levels; and enable financial flows to the stewards of nature and their partners. This work will be coordinated by the Conservation Areas Initiative and delivered by our Goal teams and Country Offices.

2 DEFINITION, CRITERIA, AND RELATIONSHIP TO PROTECTED AREAS

In 2010, Parties to the CBD agreed on 20 targets under the Strategic Plan for Biodiversity 2011–2020. Target 11 called on Parties to conserve at least 17% of terrestrial and inland water areas and 10% of coastal and marine areas 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" (emphasis added). Despite the phrase 'other effective area-based conservation measures' being included in a prominent global biodiversity target, by 2013 the concept had yet to be defined. The lead author of this report argued that "retroactively defining 'other effective area-based conservation measures' offers a unique opportunity to better recognize areas that deliver the conservation of biodiversity outside of protected areas" (Jonas et al., 2014). The International Union for Conservation of Nature (IUCN) subsequently established a Task Force[4] to provide technical advice to Parties to the CBD, and in 2018 a definition and criteria for identifying an 'other effective area-based conservation measure' was agreed on at the 14th meeting of the Conference of the Parties (CBD, 2018).

DEFINITION AND CRITERIA

The CBD defines an 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).

Taking each of the four criteria[5] of an OECM in turn:

a. Geographically defined, other than a protected area: OECMs should be spatially delineated with agreed-upon and demarcated boundaries, which can include land, inland

[4] The Task Force was co-chaired by Harry Jonas (now at WWF-US) and Kathy MacKinnon (IUCN). More information on the process of developing the Guidelines is available in a Special Issue of the *PARKS* journal on OECMs (Jonas et al., 2018).

[5] This overview of the criteria is drawn from *Recognising and Reporting Other Effective Area-based Conservation Measures* (IUCN WCPA, 2019).

waters, and marine and coastal areas. OECMs and protected areas are mutually exclusive; an OECM cannot overlap with a protected area.

FOUR CORE CRITERIA OF OECMs

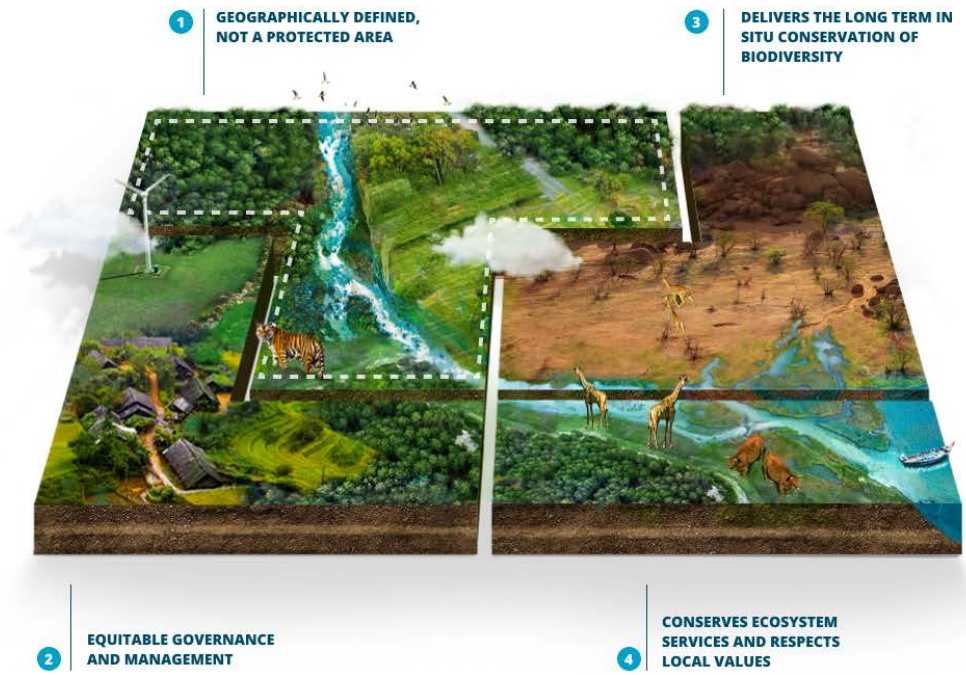

Figure 3. *The four core criteria of an OECM (CBD Decision 14/8, 2018)*

b. Governance and management: OECMs can be governed under the same diversity of governance types as protected areas: a) government agencies; b) private individuals, organizations, or companies; c) Indigenous peoples and/or local communities; and d) through shared arrangements (Borrini-Feyerabend et al., 2013). As with protected areas, the governance of OECMs should be equitable and reflect human rights principles recognized in international and regional human rights instruments and in national legislation, including those relating to gender equity, Indigenous peoples, and local communities.[6] Any recognition or reporting of OECMs governed by Indigenous peoples and/or local communities should be based on self-identification and requires the free, prior and informed consent (FPIC) of those traditional governance authority/ies (United Nations, 2007). Governance and management are expected to be 'sustained', i.e., in place for the foreseeable future. 'Management' can

[6] CBD Decision 14/8 refers to the three dimensions of equity as recognition, procedure, and distribution. This is also in line with WWF's core standards on human rights, Indigenous peoples, and gender (formerly referred to as our social policies).

include a deliberate decision to leave the area untouched, such as for areas protected from disturbance due to historic shipwrecks.

c. Long-term in situ conservation of biodiversity: OECMs must be effective at delivering positive, long-term outcomes for the in situ conservation of biodiversity. Sites should deliver in situ biodiversity outcomes of comparable importance to those of protected areas (see **Box 1**). This includes their contribution to ecological representation, coverage of areas important for biodiversity and associated ecosystem functions and services, and connectivity and integration within wider landscapes and seascapes, as well as management effectiveness and equity requirements. OECMs are expected to achieve the holistic conservation of nature rather than only of selected elements of biodiversity.

Box 1

IMPORTANT BIODIVERSITY VALUES

OECMs should effectively protect one or more of the following elements of native biodiversity:

- Rare, threatened, or endangered species and habitats, and the ecosystems that support them, including species and sites identified on the IUCN Red List of Threatened Species, Red List of Ecosystems, or national equivalents
- Representative natural ecosystems
- Areas with a high level of ecological integrity or ecological intactness, which is characterized by the occurrence of the full range of native species and supporting ecological processes
- Range-restricted species and ecosystems in natural settings
- Important species aggregations, including during migration or spawning
- Ecosystems that are especially important for species life stages, feeding, resting, molting, and breeding
- Areas of importance for ecological connectivity or that are important to complete a conservation network within a landscape or seascape
- Areas that provide critical ecosystem services, such as clean water and carbon storage, in addition to in situ biodiversity conservation
- Species and habitats that are important for traditional human uses, such as native medicinal plants, in addition to in situ biodiversity conservation

Excerpt from IUCN WCPA, 2019

d. Ecosystem functions and services and locally relevant values: The conservation include areas where the protection of key species and habitats and management of biodiversity may be achieved as part of cultural, spiritual, socioeconomic, and other locally

relevant values and practices. In such cases, it will be essential to ensure the recognition and protection of the linkages between biological and cultural diversity and associated governance and management practices that lead to positive biodiversity outcomes, such as customary sustainable uses of biodiversity (CBD Article 10(c)).[7]

A list of categories of sites that are likely and unlikely to meet the above criteria is set out in **Appendix I**.

RELATIONSHIP BETWEEN OECMs AND PROTECTED AREAS

Protected areas and OECMs are distinct but highly complementary within landscapes, seascapes and river basins. Protected areas have a primary conservation objective, i.e., they are areas dedicated to the conservation of biodiversity and managed accordingly.[8] In contrast, OECMs do not need to be dedicated to the conservation of nature but must deliver the effective and long-term in situ conservation of biodiversity.

Figure 4. *The conceptual difference between and complementarity of protected areas and OECMs.*

[7] Article 10(c) of the Convention on Biological Diversity calls on Parties to "Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements."

[8] The CBD defines a protected area as "A geographically defined area which is designated or regulated and managed to achieve specific conservation objectives" (CBD, 1992). IUCN defines a protected area as "A clearly defined geographical space, recognized, 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 are several reasons why areas that deliver important in situ conservation outcomes may not be recognized and reported as protected areas: they may be delivering ancillary or secondary conservation, or they may prima facie qualify as a protected area but a) may not be able to be recognized or reported as protected areas under (sub)national laws and policies, or b) rights holders may not wish their areas to be declared as protected areas (IUCN WCPA, 2019). Taking each situation in turn:[9]

- **Ancillary conservation** refers to a process whereby in situ conservation is delivered as a by-product of management activities, even though biodiversity conservation is not a management objective. For example, archaeological sites in Mexico, of which 193 are under the protection of Mexico's National Institute of Anthropology and History, are highly regulated spaces and therefore also contribute to the conservation of local biodiversity.[10]

Uxmal archeological site, Yucatan, Mexico. © Norbysea / unsplash.com

[9] The following three bullet points are adapted from IUCN WCPA, 2019.

[10] Another example is Scapa Flow, a natural harbor off mainland Orkney in the north of Scotland. The area is under the jurisdiction of the Orkney Islands Harbour Authority, whose management objectives for the area are the safe management of the harbor while conserving the site's cultural heritage. The area is known for the wrecks of British and German boats and is a designated war grave. Scapa Flow covers an area of 324.5 km2 and contains on the order of 1 billion cubic meters of water. The strict protection afforded to its historical wrecks also provides a high degree of protection to the benthic ecosystem, evidenced by thriving maerl beds, flame shell beds, horse mussel reefs, and fan shells, which are very rare elsewhere in Scotland. Although the area is not managed with a specific objective of nature conservation, protection of the site's biodiversity is achieved through ancillary conservation (IUCN WCPA, 2019).

- **Secondary conservation** is achieved through the active management of an area where biodiversity outcomes exist but are not the primary management objective. For example, enduring watershed protection policies and management may result in effective conservation of biodiversity in watersheds, even though the areas may be managed primarily for their ecosystem services. Sites that are not dedicated to the conservation of biodiversity, but that are managed to provide ecological connectivity between protected areas or other areas of high biodiversity, may also qualify under this category. For example, Wits Rural Facility is an academic research facility covering 350 hectares in northeast South Africa. It is privately owned and governed by Witwatersrand University and is used for educational research purposes. Conservation is a secondary management objective, as the site is managed in favor of the intact natural habitat. Ancestral gravesites on the site are also protected.[11]

The Wits Rural Facility is a university research station in South Africa that also delivers conservation outcomes. © ReWild Africa

- Areas with a **primary conservation** objective meet the definition of a protected area but may not be officially designated as such because a) the particular types of areas cannot be designated as protected areas, such as territories and areas conserved by Indigenous peoples and local communities (ICCAs/territories of life) in countries in which the protected area laws and policies do not yet recognize their governance of protected areas; or b) the governance authority does not want the area to be recognized or reported as a protected area. For example, in Putamayo District, southern Colombia, the community of the Playa Rica in Puerto Asís established a

[11] More about the Wits Rural Facility can be viewed in the film Nature Stewardship Beyond Protected Areas: OECMs, available online at youtube.com/watch?v=kL3h6MPRtwI.

conservation area of about 400 hectares and manages it through the Association of Artisanal Fishermen and Agricultural Producers of the Vereda de Playa Rica. The objective of the conservation area, as set out in the community's 'life plan', is the sustainability of the fishing resource through the recovery of the banks of the Putumayo River. The community is currently working on the zoning of the area and on the implementation of an ecotourism plan to strengthen the livelihoods of the community, with a focus on new generations.

The relationship between management objectives and biodiversity outcomes, as they relate to OECMs, is set out in **Figure 5**.

MANAGEMENT AND OECMs

Figure 5. *The relationship between management objectives and biodiversity outcomes, as they relate to OECMs*

OECMs represent the acknowledgment of the important connections between people and nature, enabling the recognition of diverse approaches to governing and managing lands and waters in ways that support livelihoods and cultural identity, conserve biodiversity, and address climate change. They promote local approaches to conserving important

biodiversity, ecological functions, and ecosystem services and enable ecological connectivity between sites and across networks.

Like protected areas, OECMs can be reported internationally, and UNEP-WCMC manages both the World Database on Protected Areas (WDPA) and on OECMs (WD-OECMs). Sites that meet the OECM criteria can be reported to the WD-OECMs based on the free, prior and informed consent of the relevant governance authorities. They can be reported by government agencies directly, and by other actors subject to third-party verification.[12] Despite the framework having been agreed on only in 2018, a significant number of OECMs have been reported to the WD-OECMs, leading to a range of emergent findings about their extent and nature (set out in **Section 3**).

Beyond protected areas and OECMs, there remain other 'conserved areas' that deliver the long-term conservation of biodiversity but a) either have not yet been designated as protected areas, b) assessed to be OECMs (according to all relevant rights, including the right to provide or withhold their free, prior and informed consent), or c) their governance authorities have actively decided against the area being designed or identified as such. In this context, OECMs are conserved areas that have been assessed against and met the CBD criteria for an OECM, in full accordance with the rights of the governance authorities. The relationship between these categories is set out in **Figure 6**.

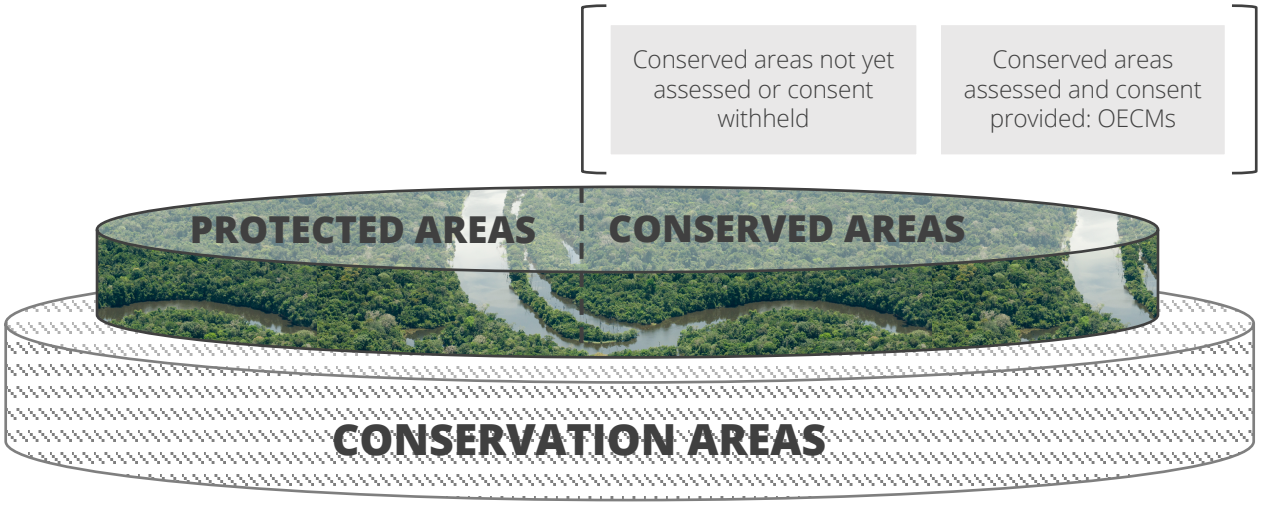

Figure 6. *The relationship between conservation areas, protected areas, conserved areas, and OECMs*

[12] World Database on OECMs: protectedplanet.net/en/thematic-areas/oecms?tab=OECMs and guidance on reporting: wcmc.io/oecm_guidance. Third-party verifiers could include nongovernmental organizations like WWF-US and WWF country offices.

3 GLOBAL STATUS AND EMERGING TRENDS

As of April 2022, 665 OECMs have been reported to the World Database on OECMs across eight countries and territories (UNEP-WCMC & IUCN, 2022, **Appendix II**). OECMs now cover 1,764,000 km^2 of the Earth's surface, accounting for 1,447,000 km^2 on land and 317,000 km^2 in the ocean. This section presents the first analysis of these areas, based on a methodology that appears in **Appendix III**.[13]

GLOBAL AND NATIONAL EXTENT

While the current global figures for OECMs are dwarfed by those for protected areas (270,000 across 245 countries and territories, covering c. 28,718,000 km^2 in the ocean and 21,224,000 km^2 on land), the reported OECMs already make a notable impact on global statistics. After only four years since the CBD agreed on the definition of and criteria for an OECM (CBD, 2018), the addition of terrestrial OECMs increased global coverage of protected areas and OECMs from 15.7% to 16.8%, a fact that enabled the Protected Planet Report 2020 (UNEP-WCMC & IUCN, 2021) to conclude that Aichi Biodiversity Target 11's 17% terrestrial and freshwater coverage target had been achieved.

OECMs have raised the coverage figures for the marine realm by only 0.1% thus far, but this global number masks the impact at the national level. For example, of the two countries that have reported marine OECMs, in the Philippines, OECMs now make up over 50% of the marine conservation network, and in Canada, OECMs have contributed to raising coverage for protected areas and OECMs to 13.8% of its marine areas[14] (**Figure 7**).

[13] While initial comparisons have been made with figures for protected areas in the same countries and territories, these comparisons should be interpreted with caution due to the limited quantity of OECM data currently available. Readers should be aware that current trends may change once additional OECMs are reported.

[14] When OECMs were first reported by Canada in 2019, they more than doubled the country's marine coverage, raising it from 2.9% to 7.7%. Canada has since reported additional protected areas and OECMs, reducing the relative contribution of OECMs but increasing its total marine coverage to 13.8%.

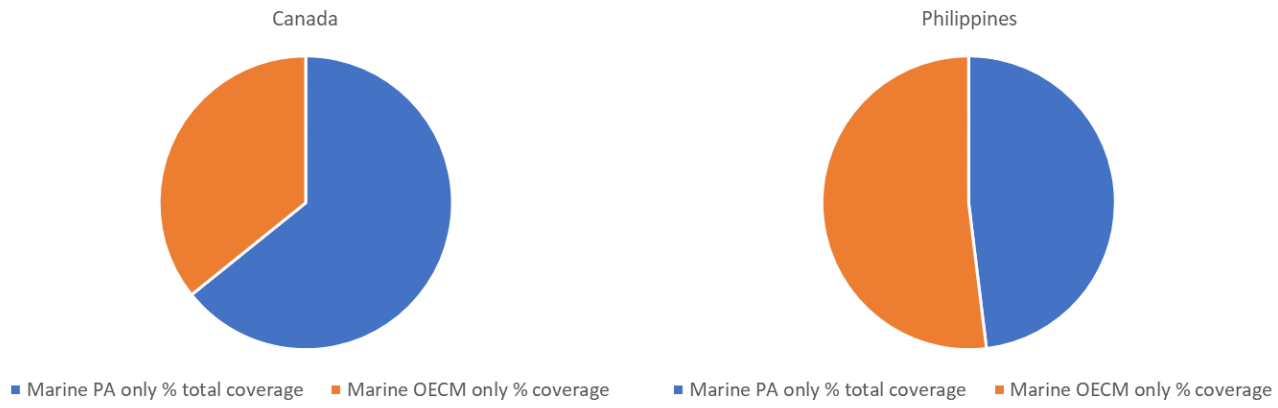

Figure 7. *Percentage of protected area and OECM marine coverage for Canada and the Philippines.*

The contributions of OECMs to total terrestrial coverage are substantial for several countries and territories, most notably for Morocco and Algeria, where they provide over 90% of the total coverage (**Figure 8**). Although Aichi Biodiversity Target 11's coverage goals were not necessarily intended to translate into national goals (i.e., the intention was not that every country was required to achieve the numeric targets), accounting for OECMs has meant that three countries (Algeria, Morocco, and the Philippines) have achieved—and in the case of Algeria and Morocco, far exceeded—17% coverage on land.

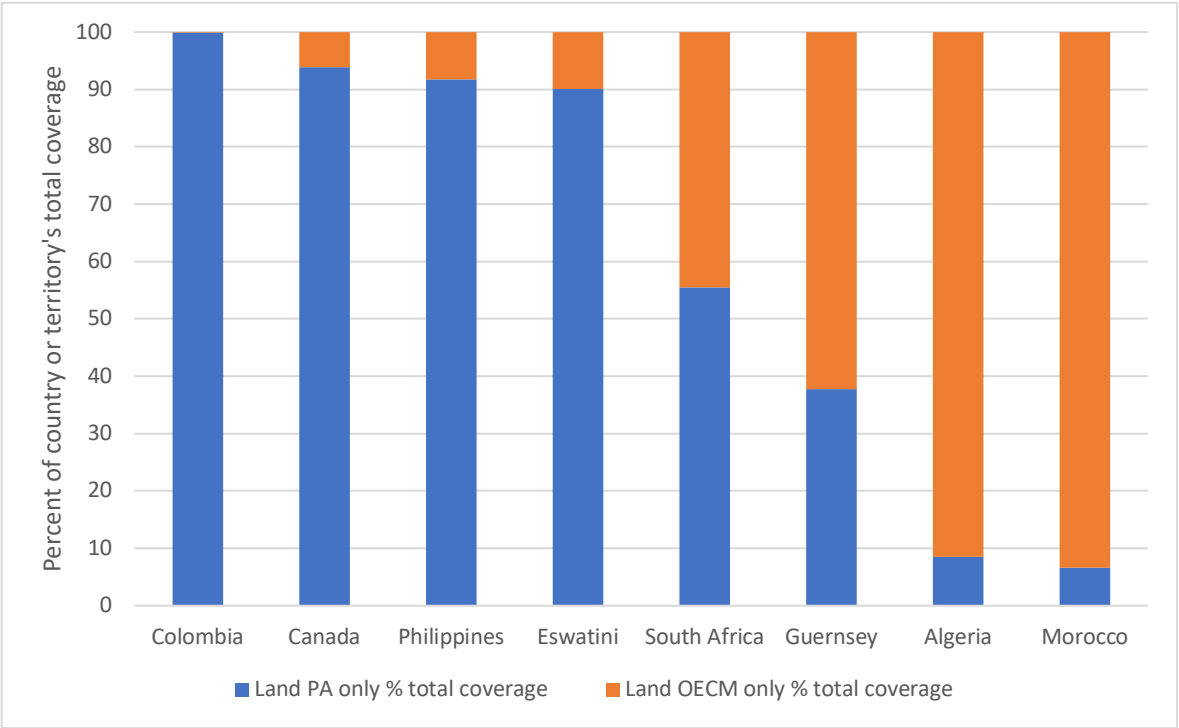

Figure 8. *Percentage of each country's terrestrial coverage (total area covered by protected areas plus OECMs) that is contributed by protected areas and OECMs, respectively*

While in some cases this significant additional coverage is provided by large numbers of OECMs (e.g., Morocco and the Philippines), in other cases it is the result of a small number of very large OECMs (e.g., Algeria and South Africa). In Guernsey (a British Crown Dependency), both the number and coverage of protected areas are exceeded by those of OECMs.

SIZE AND GOVERNANCE TYPE

OECMs vary greatly in size. The largest site of any governance type is Ahaggar Cultural Park in Algeria (over 544,000 km^2), and the smallest is La Braye de Lihou Site of Special Significance in Guernsey (0.008 km^2). Both have the governance type 'federal or national ministry or agency'. OECMs have been reported with all IUCN governance types,[15] with the exception of for-profit organizations and transboundary governance. In the currently available data (**Table 1**), the average size of OECMs varies significantly by governance type, with the highest average size occurring in OECMs under the governance of nonprofit organizations (#1) and federal or national ministries or agencies (#2). On average, the smallest OECMs are under the governance of individual landowners.[16]

Table 1. Number and average size of OECMs per governance type.

GOVERNANCE TYPE	NUMBER OF OECMs	AVERAGE AREA (KM^2)
Non-Profit organization	10	8,560.67
Federal or national ministry or agency	182	8,381.95
Subnational ministry or agency	39	1,950.67
Collaborative governance	276	611.20
Government-delegated management	2	134.74
Indigenous peoples	6	130.14
Joint governance	4	14.58
Local communities	4	12.24
Individual Landownders	6	9.46

[15] Governance by a) government agencies, b. private entities, c. Indigenous peoples and local communities, and d. collaborative-governance through a combination of the above.
[16] In these two categories, the largest area governed by a nonprofit organization is over 26,000 km^2 (Gouritz Cluster Biosphere Reserve in South Africa). In contrast, the smallest area governed by an individual landowner is 0.44 km^2 (La Ilusión Nature Reserve in Colombia).

When compared to figures for protected areas in the same set of countries and territories, these figures provide some interesting first insights into the trends for governance models in place across OECMs (**Figure 9**). Most notably, a far greater proportion of OECMs than protected areas are under collaborative (i.e., shared) governance (OECMs: 52.17%, PAs: 2.51%), and a greater proportion are under the governance of Indigenous peoples and local communities (OECMs: 1.89%, PAs: 0.04%). This may be an early indication that OECMs will extend the opportunities to recognize the contributions of diverse actors in conservation. While OECMs under private governance make up a smaller proportion of the total than protected areas under private governance, OECMs have been reported under both nonprofit organizations (OECMs: 1.89%, PAs: 8.46%) and individual landowners (OECMs: 1.13%, PAs: 15.04%). Interestingly, the proportion of OECMs under the governance of federal or national ministries or agencies is far higher than the proportion of protected areas (OECMs: 34.40%, PAs: 11.72%), while the proportion of OECMs under the governance of subnational ministries or agencies is far lower (OECMs: 7.37%, PAs: 61.49%). When all government-related forms of governance are combined (federal/national, subnational, and government-delegated), these figures show that 42% of reported OECMs are under various levels of government governance, compared to 73% of protected areas.

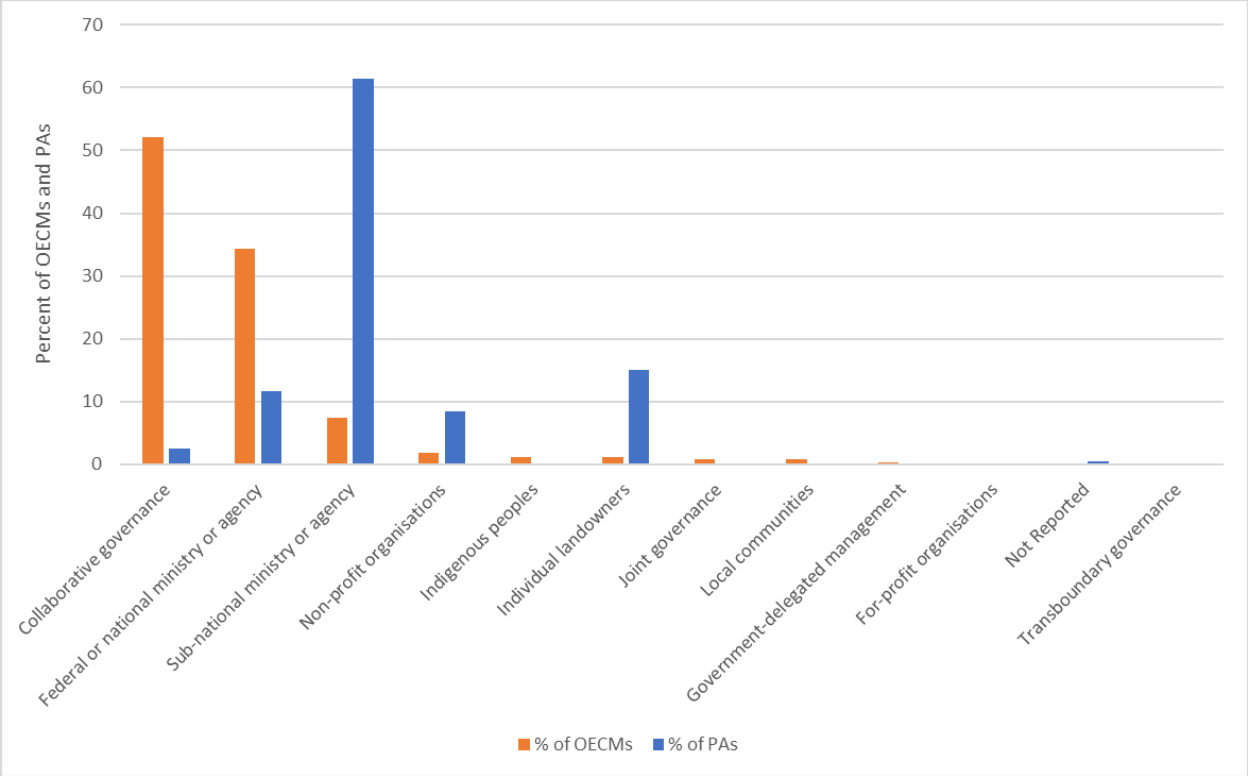

Figure 9. *Percentage of OECMs under each governance type compared to percentage of protected areas*

The picture becomes nuanced when we examine coverage. The great majority of the area covered by OECMs globally, thus far, is under the governance of federal or national ministries

or agencies (82.72%). OECMs under collaborative governance cover 8.38% of the total area covered by OECMs, while sites under the governance of nonprofit organizations or subnational ministries/agencies account for 4.68% and 4.14% of the total area covered by OECMs, respectively. Coverage of OECMs under all other governance types total less than 0.08% of the total for OECMs (**Figure 10**).

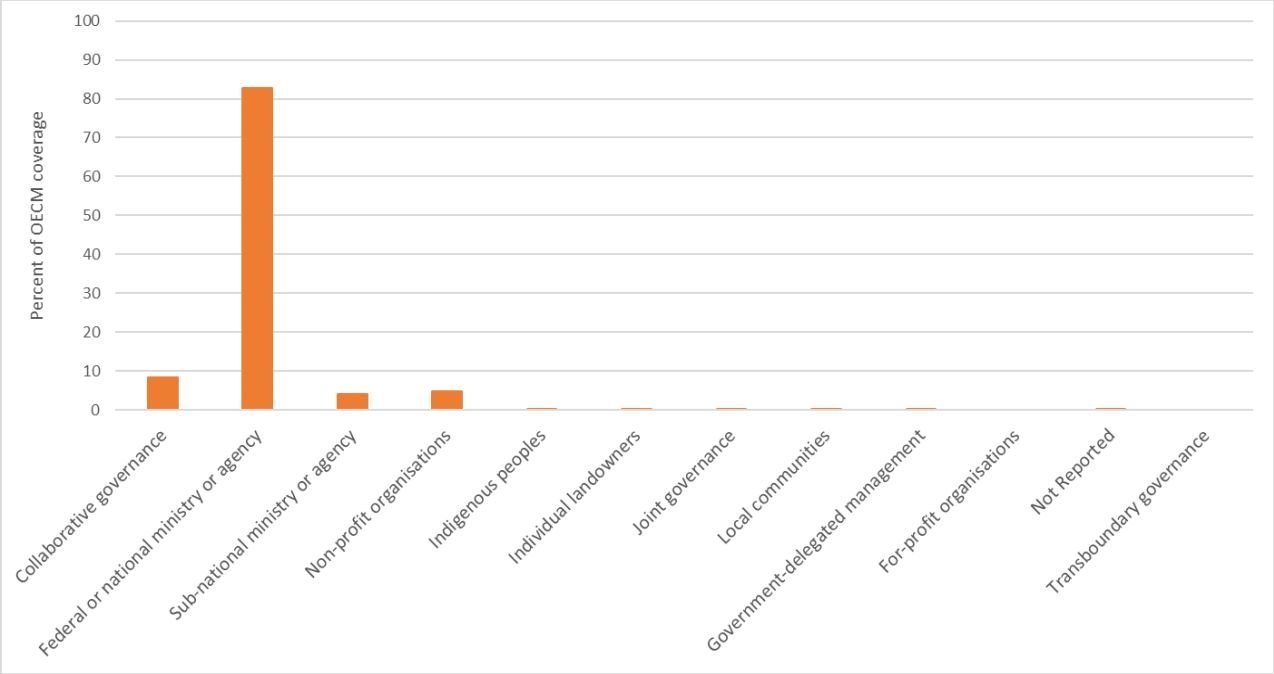

Figure 10. *Percentage of OECM coverage contributed by each governance type*

MANAGEMENT

Among the OECMs reported so far, 43% have conservation as a primary management objective and 33% have conservation as a secondary objective. This information has not been reported for the remaining OECMs.[17] Those OECMs reported as having primary conservation objectives vary significantly in their other characteristics, with examples as diverse as Algeria's Ahaggar Cultural Park, a 535,000 km^2 terrestrial OECM governed by the government and legally designated in 1987; Colombia's La Ilusión Nature Reserve, an inland OECM governed by individual landowners, covering 0.44 km^2 and established in 2007; and Pusaka Koupu-upuan Logta Lawod Bangsa Molbog Indigenous Community Conserved Area, a

[17] In terms of coverage, 69.53% of the area covered by OECMs globally has conservation as a primary management objective, and in four of the eight countries and territories, all—or almost all—of the area covered by OECMs has conservation as a primary objective. OECMs with conservation as a secondary outcome account for 6.25% of the total area covered by OECMs. Most of the area covered by OECMs in Morocco has conservation as a secondary objective. However, conservation management objectives are unknown in 24.22% of the area covered by OECMs, and this information has not been reported for all the sites in three of the eight countries and territories.

coastal OECM in the Philippines covering 352 km^2, established on communal lands and governed by the Pala'wan and Molbog Indigenous peoples.[18] These findings, coupled with the fact that no OECMs have yet been reported in the 'ancillary' category (meaning that conservation is neither a primary nor a secondary objective), are surprising. This is because, during the development of the OECM framework, it was assumed that the majority of OECMs would arise though ancillary or secondary conservation, with areas having a primary conservation objective reported as OECMs being an exception to the rule (Jonas et al., 2018). These findings contradict this assumption and require further analysis of the areas so we can better understand why areas with a primary conservation have not been reported as protected areas.

CONTRIBUTION TO ECOLOGICAL REPRESENTATION

OECMs are shown to enhance ecological representation in all of the countries and territories that have reported data. In all countries and territories, there are terrestrial ecoregions where OECMs provide coverage above that provided by protected areas alone. In Morocco and Eswatini, this is true of 100% of terrestrial ecoregions (**Figure 11**). Of the countries and territories with national waters, 71% have marine ecoregions or pelagic provinces where OECMs provide additional coverage (**Figure 12**).[19]

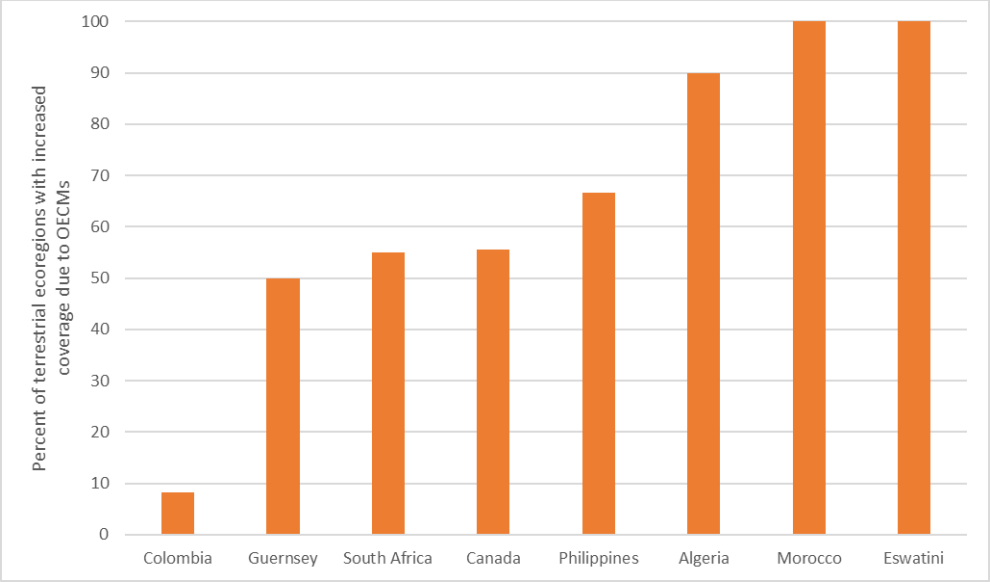

Figure 11. *Percent of terrestrial ecoregions with increased coverage due to OECMs.*

[18] Whether the communities' free, prior and informed consent was provided before the area was identified as an OECM is not known.

[19] No countries have yet reported freshwater OECMs. We will update this analysis as they do.

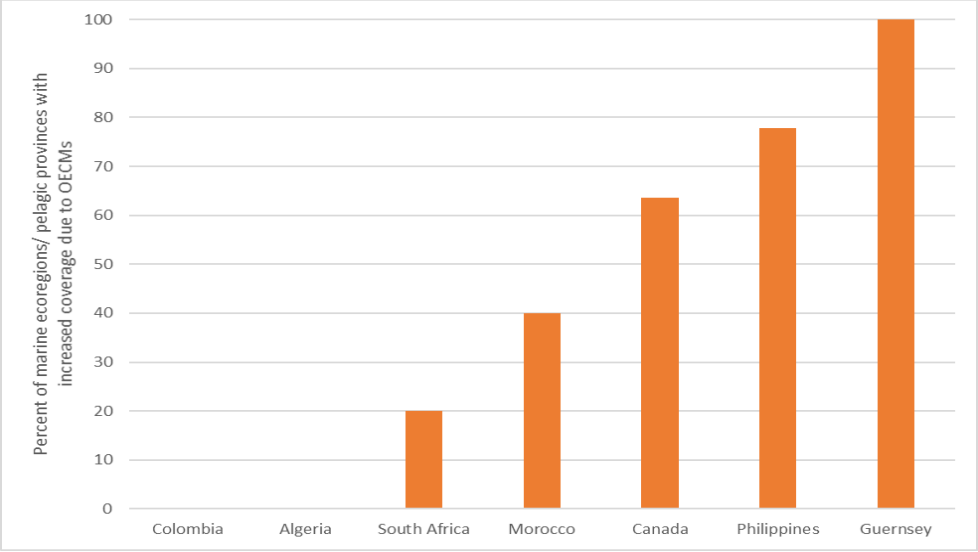

Figure 12. *Percent of marine ecoregions/pelagic provinces with increased coverage due to OECMs. Note: Guernsey's single marine ecoregion (Celtic Seas) receives only 0.005% coverage from OECMs*

Three of the eight countries and territories have achieved greater than 10% coverage of at least one marine ecoregion or pelagic province as a result of recognizing OECMs. A total of seven marine ecoregions and pelagic provinces fall into this category, with five reaching 10% in Canada alone. Among terrestrial ecoregions, the number reaching 17% coverage due to OECMs is 18 across six countries and territories.

In several cases, OECMs are conserving ecoregions that receive no—or close to no—protection from protected areas within the borders of the countries. For example, OECMs increase the coverage of the Mediterranean dry woodlands and steppe ecoregion in Morocco from zero to 66%. In Canada, they increase the coverage of the California current pelagic province from 0.1% to 45%. The most substantial increases are seen in Algeria, where OECMs raise the coverage of the South Sahara Desert and Sahelian Acacia savanna ecoregions from zero to 78% and 100%, respectively.

CONTRIBUTION TO COVERAGE OF KEY BIODIVERSITY AREAS

Over a quarter (27%) of OECMs reported to date overlap with a Key Biodiversity Area (KBA), and OECMs provide additional coverage to KBAs beyond that provided by protected areas in all countries and territories except Colombia. The percentage of KBAs that have increased coverage varies greatly between countries and territories, with the highest percentage (92%) in Morocco (**Figure 13**).

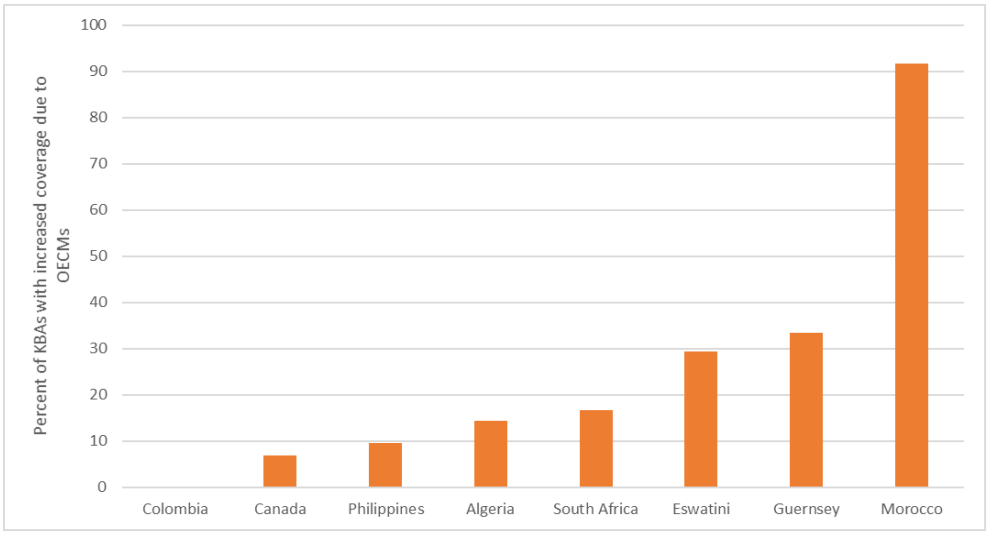

Figure 13. *Percent of KBAs with increased coverage due to OECMs*

Across the countries and territories that have reported data, OECMs cover 46 KBAs that fall entirely outside protected areas.[20] In many of these cases, the coverage provided by OECMs is significant—most notably in 11 KBAs across South Africa, Algeria, and Morocco, for which coverage has increased from zero to 99.5% or higher due to OECMs. While in some countries and territories there is little or no overlap between OECMs and KBAs, in others it is clear that OECMs intersect to a large extent with areas of high importance for biodiversity. This is most apparent in Eswatini, where 75% of OECMs overlap with a KBA (**Figure 14**).

[20] Within the boundaries of those countries and territories.

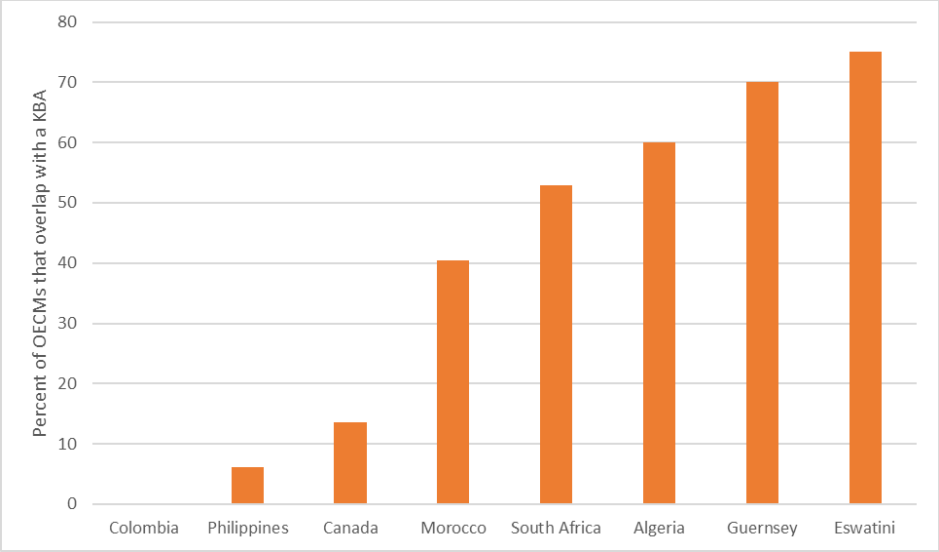

Figure 14. *Percent of OECMs that overlap with at least one KBA.*

OECMs AND THE UNITED STATES OF AMERICA

Although the United States government is not a signatory to the CBD, it is demonstrating global leadership on conservation areas through the America the Beautiful initiative (see **Box 2**). This includes a focus on areas with OECM-type arrangements being a potential mechanism for recognizing the conservation contributions of a range of actors along a continuum of conservation approaches.

Herd of bison at the Fort Belknap Indian Reservation located in Montana © Rab Cummings / WWF-US

Box 2

AMERICA THE BEAUTIFUL INITIATIVE

On January 27, 2021, President Biden issued a call for collaborative action to conserve, connect, and restore 30% of America's lands and waters by 2030 for the sake of America's economy, health, and well-being. In April 2022, America joined the High Ambition Coalition, urging Parties to the CBD to do the same. America the Beautiful's guiding principles for this national conservation effort include

- pursuing a collaborative and inclusive approach to conservation in support of locally led and locally designed conservation efforts
- conserving America's lands and waters for the benefit of all people, including honoring Tribal sovereignty and priorities of Tribal nations
- pursuing conservation and restoration approaches that create jobs and support healthy communities
- honoring private property rights and supporting the voluntary stewardship efforts of private landowners
- using science as a guide while building on existing tools and strategies with an emphasis on adaptive approaches

America the Beautiful is being developed through a process of broad engagement with agricultural, rangeland, and forest landowners; fishers; outdoor enthusiasts; Tribal nations; states; territories; local officials; and other important partners and stakeholders to identify strategies that reflect the priorities of all communities. The recognition and rewarding of voluntary conservation efforts is integral to the process.

Though a potentially powerful national conservation movement, America the Beautiful has yet to be fully embraced and is viewed with distrust by some. The operational framework is vague, including the rights, obligations, and privacy protections for participating rights holders. Similarly, the resources for and benefits from participation have yet to be defined. Uncertainty exists around whether new tax incentives for landowners and resource stewards will be created and/or whether participants will receive additional funding to incentivize participation or offset costs. It remains unclear what criteria will be applied for areas to be part of the 30% and how different kinds of lands and waters under conservation will be recognized (e.g., national parks, Forest Service, Bureau of Land Management, Tribal lands, private lands, connectivity corridors, etc.). Success for America the Beautiful will hinge upon breaking barriers of distrust through transparent engagements and increased ownership of the movement by the wider American public. This will entail being inclusive and adaptive to local constituencies; harnessing their knowledge, commitment, and sense of pride; and transcending the push-pull of America's polarized political system over time.

The WWF-US Northern Great Plains and Arctic Programs are well placed to co-develop through America the Beautiful an OECM type of approach. WWF's long-standing relationships with and support for Native nations, Tribal authorities, and private ranching communities provide a timely opportunity to facilitate inclusive engagements between resource stewards and government agencies, provide technical expertise and capacity building, share years of credible data and knowledge, and contribute to a continuum of conservation activities for some of America's greatest biodiversity assets.

FROM ACCOUNTING FOR OECMs TO RECOGNIZING & SUPPORTING LOCAL EFFORTS

First and foremost, the governance authorities of territories and areas should not have to show a biodiversity outcome to be afforded their international human rights and have their (sub)national-level rights and responsibilities respected. In the context of the above findings, illustrating how important diverse stewards of nature are to the conservation of biodiversity outside protected areas, such individuals and groups should be afforded *additional and appropriate* support and recognition of their governance and management arrangements, tenure, and/or other natural resource rights.

Related to this, a question that is often posed is whether the operation of the OECM framework is simply an 'accounting exercise', i.e., a process limited to recording areas that are delivering conservation outcomes. This question is accompanied by the explicit or implied suggestion that there is little added value if this is the case. The above analysis suggests that there is great value in accounting for these areas. Until the OECM framework was in place, few if any of the areas now reported as OECMs were considered to be "conservation areas" or included in (sub)national conservation frameworks. Identifying and reporting them enables these areas to be counted toward global biodiversity targets, i.e., reporting OECMs has 'put these places on the map' from a global conservation perspective. This should add further weight to the calls for these stewards of nature to be honored for their local-to-global contributions to a living planet, increasing their levels of respect, recognition, and support.[21] Whether and how this occurs hinges on how WWF-US and a wide range of other actors engage with the globally significant opportunities and challenges generated by the OECM framework.

[21] For the WWF Living Planet reports, please see livingplanet.panda.org/en-us/.

4 EPOCH-DEFINING OPPORTUNITES AND CHALLENGES

As part of the effort to bend the curve on global biodiversity loss, the advent of the OECM framework is enabling the enhanced recognition of diverse actors and places contributing to the in situ conservation of biodiversity worldwide—some of whom have long been undervalued and marginalized. But the framework is also generating significant questions, challenges and concerns. These are being exacerbated by the fact that OECMs are centrally referenced in Target 3 of the draft Global Biodiversity Framework and will therefore be engaged with intensively by up to 193 Parties to the CBD over the next decade. The way in which the opportunities and challenges are engaged with, including the precedents and future trajectories that are established over the short to medium term, will have significant implications for area-based conservation for the rest of the century. There is therefore a short window of opportunity (2022–2030) to ensure the integrity of the OECM framework and to demonstrate how it can contribute meaningfully to global conservation efforts. This places OECMs high on the list of the most pressing issues with which WWF-US is engaging in collaboration with many other local, national and international actors.

HIGH-LEVEL OPPORTUNITIES AND CHALLENGES

Integrated with protected areas across landscapes, seascapes, and river basins, OECMs can enhance recognition for individuals and groups that are stewarding nature and increase the diversity, equity, effectiveness, connectivity, ecosystem services, benefits to people, and climate resilience of local yet globally important conservation systems. The opportunities are outlined below.

OECMs offer an important opportunity to recognize diverse forms of governance through rights-based processes

Opportunity 1: The OECM framework enables the recognition of existing social-ecological and tenure systems that are delivering the long-term in situ conservation of biodiversity. Parties to the CBD designed the OECM framework to increase recognition of diverse forms of governance and management that are specific to particular people and places and aligned with local livelihoods and values, governance, and traditional knowledge systems (CBD, 2018). It therefore provides an important opportunity to engage a wide diversity of governance authorities through rights-based approaches in ways that promote the three dimensions of equity, namely recognition, procedure, and distribution (CBD, 2018). This fosters local leadership, enables the maintenance of existing systems, and, where appropriate, can lead to their support or enhancement. *See **Appendix IV** case studies 1 - the Dixie rangelands, South Africa; 2 - Wafo Wapi, Ancestral Territory for Conservation, Chile; and 3 - the Aravalli Biodiversity Park, India.*

Opportunity 2: OECMs, together with protected areas, can help ensure effective representative and well-connected conservation networks within landscapes, seascapes, or river basins in which all elements of biodiversity are represented and ecological processes are sustained, including relating to species movements and ranging species (**Figure 15**). As highlighted in the above analysis, the OECM framework is enabling greater ecological representativity, including through recognition of areas important for biodiversity significance outside protected areas, such as Key Biodiversity Areas (KBAs) and, likely in the future, areas such as Important Plant Areas (IPAs), Important Bird Areas (IBAs), Important Marine Mammal Areas (IMMAs), and Ecologically or Biologically Significant Marine Areas (EBSAs).

OECMs can help ensure connectivity for species movement in response to climate change, conservation of climate refugia outside protected areas, and nature-based approaches for climate adaptation by vulnerable human

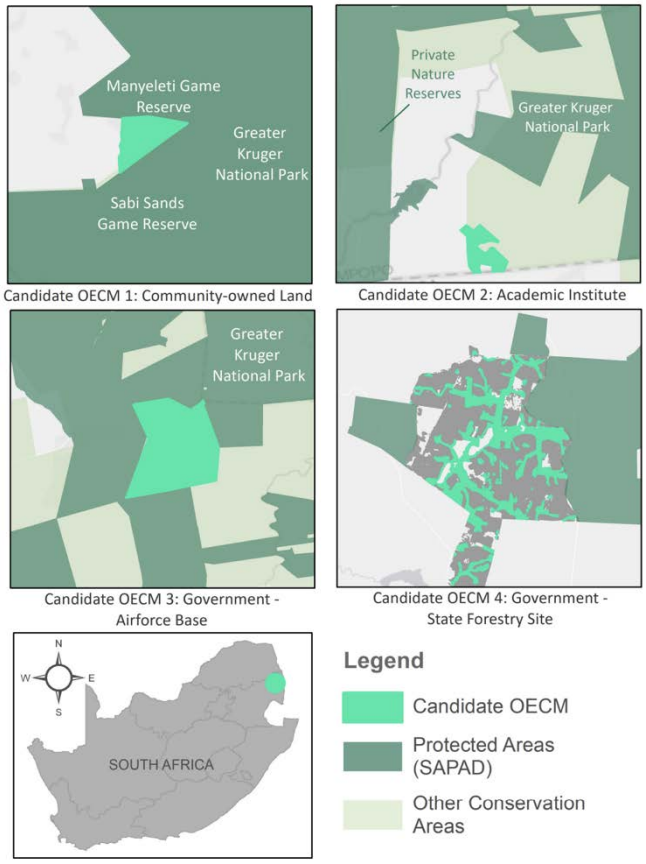

Figure 15. *OECMs contribute ecological connectivity in the Kruger to Canyons Biosphere Region in South Africa (Marnewick et al., 2021).*

communities.[22] Adding significant spatial coverage to the global conservation areas estate will also increase ecological representativity at the national, regional and global levels. Restored ecosystems are also being used for vulnerability reduction.

Opportunity 3: Many OECMs will likely contribute to enhancing the provision of ecosystem services and other values and benefits to people at a range of scales, from local livelihoods to regional water supplies and global climate regulation. For this reason, the framework usefully acknowledges the fact that there are diverse forms of motivations and management that can lead to the long-term in situ conservation of biodiversity. OECMs therefore play a role in supporting local economies that simultaneously safeguard biodiversity, ecosystems and contribute to climate resilience (**Figure 16**). *See **Appendix IV** case studies 4 - Bukit Tigapuluh in Indonesia, and 5 - Fishing Refuge Zones in Mexico.*

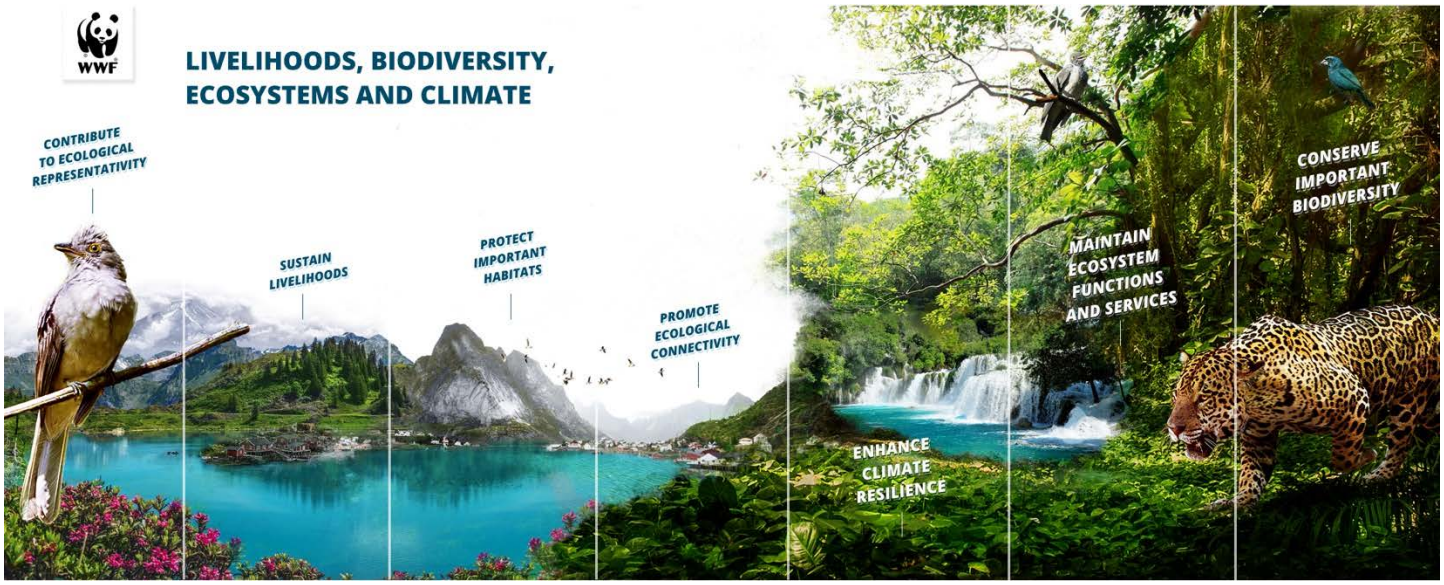

Figure 16. *The biodiversity, ecosystem, and climate benefits of OECMs*

Opportunity 4: Better recognition of and support for OECMs can bolster the larger conservation system's resilience to political or planning shifts. Diversifying types of conservation area networks in landscapes, seascapes, and river basins beyond government-managed protected areas can help buffer and enhance the resilience of the larger networks against shifts in national policies toward protected area downgrading, downsizing, and degazettement (PADDD). Similarly, well-planned landscapes, seascapes, and river basins with effective networks of protected areas and OECMs can help prevent or minimize risks and adverse impacts of infrastructure development on habitat fragmentation and

[22] Some species may move readily across landscapes, riverscapes, or habitats, as warming temperatures and changing ecological conditions alter their habitat. Less mobile species will change their distribution more slowly. Some, such as trees and other plants, will only be able to migrate through reproduction and seed distribution. Freshwater obligate species are restricted in their ability to move to new habitats via river network connectivity.

conversion. However, with reference to 'Opportunity 1', these benefits will only arise where the governance authorities of sites that meet the OECM criteria have secure tenure and/or natural resource rights and where decisions are community led as opposed to being vulnerable to elite capture. See **Box 3**.

Box 3

THE POTENTIAL FOR OECMs IN THE KAVANGO-ZAMBEZI TRANSFRONTEIR CONSERVATION AREA

Covering over 520,000 km^2, the Kavango-Zambezi Transfrontier Conservation Area (KAZA) is the largest terrestrial transfrontier conservation area in the world, and is composed of a mosaic of national parks, game reserves, state forests, community conserved areas, and communal lands occupied by a diversity of Indigenous peoples and local communities. KAZA is a collaborative effort by Angola, Botswana, Namibia, Zambia, and Zimbabwe to collectively manage its shared natural resources for sustainable economic development and the well-being of resident communities. Though no OECMs have been reported from the region, the framework offers interesting opportunities, including the following:

- Existing Angolan legislation provides for communities to secure and control up to 1,000 hectares for such purposes as agricultural development, forestry, and freshwater fisheries. However, current legislation does not provide for community rights over wildlife or larger-scale community conservation efforts. The introduction of OECMs in buffer zones around Angola's vast Luengue Luiana and Mavinga national parks may prove a useful mechanism for incentivizing communities as wildlife stewards and scaling up community conservation activities related to community forests and fish reserves.
- The establishment of wildlife corridors between protected areas and across international borders is crucial to the long-term viability of KAZA's shared wildlife populations. OECMs may prove a useful mechanism for resident communities and associated governments to collaboratively secure such corridors while also recognizing the multiple livelihood uses of such areas.
- Communities resident to Zambia's Game Management Areas (park buffer zones) are recognized co-benefactors and stewards of wildlife. The introduction of OECMs might prove an incentive for resident communities on extensive areas of open communal lands outside of Game Management Areas to work on management effectiveness of their areas.

KAZA countries will require time for governments and stakeholders to test and adapt the OECM concept. But given the vast areas of communal land in KAZA and the respective governments' desires to recognize and partner with communities in conservation and development, OECMs may fill legislative voids and create incentives for communities to contribute to conservation while also fulfilling their livelihood needs.

In sum, OECMs contribute to local livelihoods as well as to global biodiversity and climate change targets by supporting important ecosystems, habitats, and wildlife/climate corridors, promoting the recovery of threatened species, maintaining ecosystem functions and services, enhancing resilience to internal and external threats, and retaining and connecting remnants of fragmented ecosystems in degraded landscapes. Yet these opportunities are matched by a range of significant challenges and questions.

Figure 17. *The opportunities and challenges of OECMs*

Challenge 1: There is a worldwide gap in knowledge and expertise of and engagement with OECMs. Very few people and institutions, among the large number and great diversity of relevant rights holders and stakeholders, know about or have begun to engage with the OECM framework. There is therefore a pressing need to support the transfer of knowledge, skills, guidance, methodologies, and examples of good practice to enable these groups to engage with and benefit from the framework. There is also an important agenda to provide space, particularly for Indigenous peoples and local communities, a) to assess for themselves whether the OECM framework can provide them with context-specific leverage or opportunities, or whether it might instead lead to negative outcomes; and b) based on that, to decide whether or how or to engage.

Challenge 2: There is a risk that the OECM framework will be misused. This might occur in at least three ways. First, in a rush to report OECMs toward Target 3, Parties to the CBD may infringe the rights and interests of Indigenous peoples, local communities, and other rights holders and stakeholders. If this occurs, it would be contrary to the relevant CBD decision that clearly requires any identification and reporting of OECMs to be based on the consent of the relevant governance authority/ies. Second, there are concerns that Parties and sectoral actors may report areas as OECMs that do not meet the CBD ecological criteria, such as areas low in biodiversity and ecosystem values. There is already evidence of some national governments trying to equate OECMs with areas that better fit the definition of sustainable production areas (e.g., single species–focused production areas) and/or are areas under industrial use. This might occur because CBD Parties have incentives to meet their 30% targets or because sectoral actors may intend to 'greenwash' otherwise environmentally damaging operations. Third, some countries may consider OECMs to be a cheaper option than protected areas and change the designation of protected areas to OECMs, which may be considered a form of PADDD, though may not necessarily lead to a site's ecological degradation. Nevertheless, this would also be contrary to the spirit of the CBD's intention for developing the OECM framework.

Challenge 3: There is a need for greater focus on the social and ecological assessment and monitoring of sites. Sites need to be carefully assessed to be identified and monitored and remain reported as OECMs, which raises practical challenges. First, a balance must be struck between promoting assessment and monitoring methods that are on the one hand user friendly and amenable to use in different contexts and by culturally diverse groups and on the other hand rigorous and deliver results that can be compared across sites and regions. At present, UNEP-WCMC accepts data directly from CBD Parties but requires data from other providers to be verified by a third party. This raises the question of whether there should also be verification of state-provided data if independent analysis of OECMs submitted by governmental agencies demonstrates that significant numbers of sites are not meeting either the equity and/or conservation effectiveness criteria. Similarly, the status and/or boundaries of sites may change over time, which might suggest that they should be monitored on a regular basis and the results submitted to the World Database on a regular basis to continue to be listed. All of these activities are labor intensive and may require additional expertise and resources. Nevertheless, they are vitally important; counting inequitable or 'paper' OECMs toward global conservation targets will have no net effect on the biodiversity crisis and, if they are counted in significant numbers, will undermine Target 3 and future spatial biodiversity targets.

Other related questions include those listed below:

- Who will facilitate and support the global awareness-raising and capacity-development effort required to ensure consistent application of the CBD criteria?
- Which innovative legal mechanisms exist that enable the recognition of OECMs and could be scaled? Will new or reformed (sub)national legal mechanisms be required to appropriately recognize OECMs, and how long will they take to be established? [23]
- What kinds of enabling conditions or support—such as incentives, recognition of land and use rights, training, and funding—will most appropriately promote equitable governance, local benefit-sharing, and effective management, and increase the security of the areas and people defending them?
- Will OECMs cost as much to support per square kilometer as protected areas and, relatedly, will OECMs attract funding that would otherwise be allocated to protected areas?
- Are funders sufficiently aware of this new framework and the nuances related to its opportunities and challenges? Does the OECM framework offer opportunities to link conservation with other donor priorities such as rights, livelihoods, nutrition, and climate?

The above opportunities and challenges arise in different ways per type of governance authority. **Appendix V** sets out by governance type an illustrative list of areas, incentives and motivations, opportunities, and challenges as they arise in the context of government agencies, Indigenous peoples and local communities, private actors, and economic sectors.

The above analysis underscores the fact that the OECM framework represents a major global opportunity to recognize biodiversity conservation occurring through the actions of a wider range of governance authorities and spatial management measures than ever before. Progress with these actors and in these places is also highly relevant to achieving climate targets and the Sustainable Development Goals. But to secure the benefits offered by the OECM framework, we must address the significant range of associated questions and challenges.

Few individuals or groups currently understand the magnitude of the pros and cons of the OECM framework; this puts a heightened responsibility on WWF-US to play a leadership role as global engagement with OECMs grows.

[23] For example, Indonesia has initiated revisions to its conservation laws to accommodate coastal OECMs, which may provide opportunities for Indigenous and local communities to gain legal recognition of their rights to use and manage fisheries (Gurney at al., 2021).

5 WWF-US's RESPONSES

In 2019, we reviewed WWF-US's existing support for area-based conservation work around the world.[24] Support covered an area of 2,697,621 km^2, of which 85% was terrestrial and 14% was marine. Freshwater work covered 1% of the area, encompassing 4,460 km of rivers. An estimated 60% of this work was taking place in protected areas, while work outside protected areas covered at least 722,500 km^2, with community conserved areas covering the largest proportion, followed by ecological corridors.[25] In the context of the 'five wedges' approach to area-based conservation that we developed (**Box 4**), the assessment found that our work focused predominantly on increasing management effectiveness of existing areas, including by increasing financing through Earth for Life (EFL) and through the work of place-based WWF initiatives such as in the Arctic. Some redesign work was ongoing. Restoration was a common strategy. Renovation and repurposing were less common, likely because they are relatively new concepts. Expansion to new areas was occurring in several initiatives, and in many places there was a strong focus on support to strengthen Indigenous peoples and local community rights to better govern and manage their areas.

[24] WWF-US, 2019. Area-based conservation: the way forward for WWF-US. Unpublished report to WWF-US Board. WWF-US, Washington, D.C.
[25] Twenty-eight percent of management units contained some Indigenous-governed areas.

Box 4

THE FIVE WEDGES – WWF US's APPROACH TO SCALING INCLUSIVE & EFFECTIVE CONSERVATION

The five approaches or "wedges" that we are applying to enhance conservation of nature and nature's contributions to people in the landscape and attempt to reverse the curve of biodiversity loss are

- **Improving management effectiveness** in underperforming protected and conserved areas
- **Redesigning** networks of protected and conserved areas in landscapes for more effective conservation, including enhanced connectivity and, where needed, temporary and dynamic protections as well as permanent ones
- **Recognizing** Indigenous peoples' and local communities' areas, where needed, to help establish rights and strengthen tenure and governance; and **expanding coverage** in areas with other tenure arrangements by enlarging, connecting, or establishing new PAs and OECMs
- **Renovating** modified or degraded ecosystems in the face of changing conditions to conserve nature and meet the shifting needs of people
- **Repurposing** by adapting management objectives to changing conditions in order to optimize benefits for people and nature in areas that no longer serve their original intended purpose

Application of these approaches is place-specific, since the institutional and biophysical contexts are different in each landscape, seascape or river basin. They contribute to the wider landscape strategies developed from a co-creation process with local stakeholders, and particularly building on Indigenous peoples' and local community organizations' agency. We are aiming not only to achieve conservation, but also to contribute to social and economic development.

Drawing on these data and insights, and in anticipation of the adoption of the CBD's Global Biodiversity Framework (now expected in late 2022), we have recently launched the Conservation Areas Initiative, placing renewed emphasis on advancing inclusive and effective area-based conservation worldwide. Our strategy reflects the new conservation areas paradigm and promotes the conservation of biodiversity and nature's contributions to people, with a much greater focus on partnering with nature's stewards and on areas with high biodiversity value within and outside protected areas, especially areas managed by Indigenous peoples, local communities, fishers, farmers, foresters, and pastoralists. We are taking an inclusive, equitable, rights-based approach that considers current and future conditions in landscapes and seascapes and that draws upon Indigenous, local, and Western knowledge systems through innovative methodologies.

The Conservation Areas Initiative complements WWF's influence work[26] to promote a coordinated and synergistic approach across the WWF-US conservation portfolio, and has three workstreams:

- **Support inclusive and effective conservation:** Toward effective use of the five wedges (**Box 4**, above), we work with Country Offices and diverse rights holders and stakeholders to facilitate landscape prioritization, develop landscape strategies, and facilitate a range of activities that support local conservation initiatives.[27]
- **Enhance enabling conditions:** We build local-to-global partnerships, raise the profiles of priority places, promote rights and gender equity (substantive and procedural), amplify local voices, spotlight achievements, and support the collection and sharing of best practices. We also engage with (sub)national and international law and policy relating to human rights, biodiversity, and climate change.
- **Secure durable financing:** We strengthen enabling conditions for durable financing, collaborate with partner organizations to develop and fundraise for project finance for permanence (PFP) deals, and develop, capitalize, and apply innovative funding mechanisms through non-PFP financing strategies.

SUPPORTING THE STEWARDS OF NATURE THROUGH THE CONSERVATION AREAS INITIATIVE

The core areas of activities are set according to the three workstreams of the Conservation Areas Initiative.

A. Support inclusive and effective conservation

1. Engage with the OECM framework as a critical proponent: As an overall approach, and as per the core theme of this report, OECMs are not a panacea. WWF-US should therefore act as a proponent of the framework, investing in partnerships and activities to best achieve the framework's potential, but do so not uncritically. The framework contains weaknesses that require attention, and there will be future examples of bad practice that should be addressed diplomatically.

[26] Our influence work engages with policy-makers, sectoral actors, and market chains to address drivers of biodiversity loss that originate beyond the boundaries of landscape and seascapes.
[27] This includes supporting the design and scaling of successful local-to-national initiatives; enhancing governance and management arrangements; promoting sustainable livelihoods and the economic, productive, and generative elements of conservation areas; strengthening climate resilience; and providing technical assistance relating to monitoring, evaluation, and learning.

2. Partner with the stewards of nature: In a far more direct way than the protected areas framework, OECMs put an emphasis on supporting the existing efforts of local actors; some of whom will be working deliberately toward conservation outcomes, while others will be delivering the long-term conservation of biodiversity as ancillary or secondary outcomes of their activities (see **Appendix VI** for a graduated list of areas in which WWF-US can have an impact). This puts a premium on engaging actors according to a rights-based approach and supporting them to articulate their development aspirations and how their forms of governance and management support livelihoods and human well-being, biodiversity conservation, and climate resilience. Because the OECM framework can have both positive and negative effects, particularly for private entities, Indigenous peoples, and local communities, it will be important for WWF to act as an honest broker, introducing rights holders and stakeholders to the framework's pros and cons and supporting locally led processes to enable the consideration of whether and, if so, how actors choose to engage with OECMs. There is a significant amount of relevant experience across the WWF network, and drawing upon it effectively will be important to ensure we are benefitting and building upon that foundation.[28]

3. Strengthen existing local rights, governance, and management: Because effective management is often highly contingent on tenure and natural resource rights, the governance authorities of OECMs will be better able to deliver conservation outcomes when these and other related rights are strengthened and respected. We must draw from our previous and existing work on these issues and build upon our expertise to support the stewards of nature in delivering a range of local priorities, including sustainable livelihoods, biodiversity conservation, and climate resilience. This includes promoting equitable approaches in decision-making and benefit sharing, including targeted support to marginalized members and groups within communities, such as individual environmental human rights defenders. Communities are not homogeneous, and there is a risk that OECMs will generate another opportunity for elite capture. In this context, WWF-US should help secure communities' rights to their areas, strengthen internal governance arrangements (including self-monitoring of these arrangements), and enable women, youth, and other people in vulnerable or marginalized situations to impact decision-making and receive their fair share of benefits within the community. These actions, when

[28] In this work, allies will include colleagues in the Protected and Conserved Areas ACAI, the People Protecting Landscapes and Seascapes program, WWF international's work on Future Conservation, and the Inclusive Conservation Academy.

coupled with appropriate forms of capacity support, will enable more equitable and effective management of these areas.

4. Harness the linkages between livelihoods, economic activities, and conservation: Livelihood generation and economic activities can often be in conflict with biodiversity conservation. However, in many places, nature-based enterprises can be enhanced by linking local producers to markets and private-sector entities, generating increased employment opportunities and income in an environmentally sensitive and sustainable manner. It is important to explore, support, and share successful nature-based livelihood and stewardship economies to help resource stewards most wisely draw on their natural and cultural heritage as part of an approach to land and sea management that integrates conservation and local development priorities.

Under this workstream, we are already engaging in the following activities:

- **Landscape and seascape efforts:** We are supporting our respective country offices to run six-month consultation processes in the Southwest Amazon landscape and Chilean seascape with local partners to co-develop a five-year project on OECMs in those regions; and facilitating the development of landscape plans in at least two WWF-US priority places, inclusive of OECMs in large landscape, seascape, and river basin conservation.

- **National level:** We are working through our country offices in Mexico, Ecuador, Namibia, Nepal, Zimbabwe, and Chile to develop national-level plans for inclusive and effective networks of protected areas and OECMs.

B. Enhance enabling conditions

5. Co-develop best practice: As set out in the case studies (**Appendix IV**), a range of emerging OECM examples have been identified and reported internationally. Yet there is not yet any published analysis about how those processes were conducted, including relating to consent of the governance authority, which forms of assessments were applied and by whom, and how the international reporting procedures were managed. We also do not know whether areas identified and reported as OECMs are receiving new or additional kinds of recognition or support. This knowledge gap must be addressed by WWF-US in at least two ways. First, we should partner with organizations to develop a wider range of OECM examples and to analyze them more deeply than has yet been undertaken. Second, we should work with WWF's country offices to co-develop good practices through inclusive and

participatory processes, also working with them to share and adapt such practices within their relevant regions and internationally.

6. Provide training and facilitate lesson sharing: Rights holders and stakeholders are calling for training and lesson sharing in many different forms, including through workshops, webinars, massive open online courses (MOOCs), publications, and other multimedia products. WWF is a global leader in developing resources and communicating complex issues locally, nationally, regionally, and internationally in nuanced and effective ways. Partnerships will be important as we work to meet the scale of this challenge.

7. Design locally applicable assessment methodologies for equitable and effective conservation: The advent of OECMs has exposed the fact that there is a need for low-cost and locally applicable methodologies for assessing the status of equity, biodiversity, ecosystem services, and climate risk in terrestrial, freshwater, and marine environments. WWF should build the relevant multistakeholder and transdisciplinary partnerships to address this and support the testing of the various methodologies related to identifying, establishing, monitoring, and reporting OECMs.

8. Provide thought leadership relating to monitoring and reporting: Related to activity 7, the ongoing monitoring and reporting of the social, ecological, and governance status and outcomes of OECMs will become an increasingly contentious issue in the implementation of the Global Biodiversity Framework. As discussed above, because the CBD criteria set objective standards relating to the "long term outcomes for the in situ conservation of biodiversity," questions are being raised about the right of CBD Parties to report areas without any third-party verification. Similarly, questions are being asked about whether OECMs should be assessed periodically to maintain their OECM status. These issues are significant and require thought leadership and convening relevant groups to develop new modalities. WWF-US is well positioned to draw on its standing and resources to facilitate such processes.

9. Promote consistent national-level approaches: National governments around the world are starting to engage with OECMs. This is expected to greatly increase once Target 3 of the Global Biodiversity Framework is agreed on at CBD COP 15. The case studies (**Appendix IV**) already highlight differences in the respective countries' interpretations of the CBD criteria. WWF-US should use its convening power to promote the consistent use of the CBD criteria by governments and other actors. We can usefully partner with other organizations, such as the IUCN World Commission on Protected Areas and the Food and Agriculture Organization, to run national-level

workshops and regional or international events around governance or sector-specific issues.

10. Amplify impactful stories: The extraordinary stories that will surface through our engagement with OECMs over the next decade will provide unique opportunities to develop and deepen partnerships with multimedia companies, including organizations such as the National Geographic Society, Disney, Discovery, and Netflix. OECMs present a broad new canvas for this work. A film or series of programs about the lives and contributions of nature's stewards would be a timely contribution.

11. Advocate for the inclusion of OECMs in other multilateral environmental agreements: OECMs contribute to several of the UN Sustainable Development Goals as well as climate resilience. WWF-US should advocate across a range of multilateral fora for reference to OECMs, alongside protected areas, to ensure they are visible and can therefore make the greatest contribution to these diverse global targets and goals.

Under this workstream, the following activities are underway:

- **Resources:** Co-publishing with IUCN WCPA and UNEP-WCMC a revised best-practice guide on OECMs and a methodology for identifying OECMs; producing a guide for all Global Environment Facility-eligible countries on equitable and effective networks of protected areas and OECMs; making a short film about securing Indigenous peoples' rights and strengthening natural resource-based livelihoods in northern Peru.
- **Training:** Running a series of training events in the Latin American and Caribbean region on OECMs in partnership with the IUCN WCPA and Re:wild (rewild.org).
- **Advancing the science:** Supporting this year's Fuller Symposium, which will focus on OECMs and bring together experts to address a number of the key issues raised above.
- **Partnerships:** Assessing suitable partners with whom to collaborate on taking OECMs to scale at national and international levels.
- **Policy:** Submitting inputs on how to operationalize the America the Beautiful initiative (above).

C. Secure durable financing

12. Generate funding opportunities for OECMs: We must strive to align public and private financial flows and generate enabling conditions to internalize the values of nature's services to people and the rights of people to those services. First, WWF-US should engage individual funders and organize funder events to introduce these key partners to the framework and its related opportunities and challenges. As a leader in the field, we are well placed to help frame a forward-looking financing agenda. In addition to traditional funders, OECMs will require, and are good candidates to attract, new and additional funding from a diversity of sources focusing on education, human rights, development, and business investment.

Second, the advent of OECMs also requires us to consider how our permanent finance work, including through 'project finance for permanence' (PFP), can or should evolve to better support these conserved areas. This highlights the need for concerted engagement by the relevant teams on thinking about their existing fundraising strategies as they relate to OECMs.

Existing efforts that will or are likely to support OECMs include the following:

- **Enabling conditions for PFPs:** The Earth for Life team is promoting enabling conditions for PFP deals in Ecuador, Bolivia, and with Native nations in the Northern Great Plains.
- **Other durable finance:** We are exploring opportunities for non-PFP durable financing and blended finance support to conservation areas. For example, the team has provided guidance and inputs to the governance and project pipeline development of the Heritage Colombia Investment Platform that aims to enable local project developers with interested donors and investors in priority conservation landscapes.

TRANSFORMATIVE ACTION FOR STEWARDS, SITES, AND SPECIES

New targets negotiated at CBD COP 15 will set the global conservation agenda over the next decade. The inclusion of OECMs in the future Target 3 offers a momentous opportunity to innovate on existing conservation models. WWF is well placed—locally and globally—to play a leadership role in this new conservation areas paradigm. But it is very urgent that we act now, as the window of opportunity is short. If we can implement the steps we outline above, we will help ensure that the stewards of nature are central to the transformations needed for a sustainable future for the planet.

The Luc Hoffman Institute recently published *Exploring Possible Futures for Conservation NGOs* (Tallack & Vijfeijken, 2022). The report concludes with the following call to embrace change:

> *The world is a volatile, uncertain, complex and ambiguous place, and megatrends—most notably the climate crisis and accelerated biodiversity loss—are affecting all aspects of nature, individuals, sectors and parts of society. In this context, the perceived safety and certainty of old roles and old structures are comforting but are likely to lead to continued erosion of effectiveness, relevance and legitimacy. Changing organizational forms is risky but the trajectory the world is on means new and transformed conservation organizations are essential to address the urgency and scale of the existential threat to people and nature. (p. 29)*

This report speaks to the epochal change to area-based conservation being brought about by the OECM framework, about which there is limited appreciation and the future effects of which are highly uncertain. As the conservation areas paradigm evolves, so must the way in which we think about and 'do' conservation, who we partner with, and how we finance our collective work. In this context, OECMs offer WWF-US a transformative opportunity to respond to these changes positively and proactively by deepening our partnerships with diverse stewards of nature to enhance human well-being, secure biodiversity, and address climate change and its impacts.

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APPENDIX I

Categories of potential OECMs and areas unlikely to meet the OECM criteria

This appendix is an edited excerpt from *Recognising and Reporting OECMs* (IUCN WCPA, 2019: 9-11)

Categories of potential OECMs

The following situations can be considered as potential OECMs. These examples cover the range of governance types for purposes of illustrating their applicability. A number of examples in which the citation has been marked with an asterisk (*) can be found in a Special Issue of PARKS journal on OECMs *(IUCN/WCPA, 2018). doi.org/10.2305/IUCN.CH.2018.PARKS-24-SI.en*

a. Ancillary conservation

Examples can include

- sacred natural sites with high biodiversity values that are conserved in the long term for their associations with one or more faith groups (e.g., Matallana-Tobón et al., 2018*)
- coastal and marine areas that are protected for reasons other than conservation, but that nonetheless achieve the in situ conservation of biodiversity, e.g., historic wrecks, war graves.
- military lands and waters, or portions of military lands and waters that are managed for the purpose of defense and do not have a secondary objective of biodiversity conservation, but achieve the effective conservation of biodiversity in the long term.

b. Secondary conservation

Examples can include:

- Territories and areas managed by Indigenous peoples and/or local communities (ICCAs, or sections of these areas) to maintain natural or near-natural ecosystems, with low levels of use of natural resources practiced on a sustainable basis and in a way that does not degrade the area's biodiversity. This includes coastal and marine areas where local community-based harvesting and management practices result in de facto conservation of fish populations, habitats, and other associated marine biodiversity such as some locally managed marine areas (LMMAs) (Jupiter et al., 2014).

- Traditional management systems that maintain high levels of associated biodiversity. These could include certain agricultural or forest management systems that maintain native species and their habitat (e.g., Eghenter, 2018; Mwamidi et al., 2018*).
- Urban or municipal parks managed primarily for public recreation but that are large enough and sufficiently natural to also effectively achieve the in situ conservation of biodiversity (e.g., wild grassland, wetlands) and that are managed to maintain these biodiversity values (e.g., Gray et al., 2018).
- Military lands and waters, or portions of military lands and waters that are primarily managed for the purpose of defense but with specific secondary objectives focused on the conservation of biodiversity. Canadian Forces Base Shilo, located in the mixed-grass prairie ecosystem of south-central Manitoba (Canada), was proposed by Canada as an OECM in 2019.
- Watersheds or other areas managed primarily for water resource management that also result in the in situ conservation of biodiversity. This can include, for example, water meadows, riverine forest, coastal forests, wetlands, streams, upland catchments, or other areas managed for long-term soil and slope stabilization, flood mitigation, or other ecosystem services (e.g., Matallana-Tobón et al., 2018*).
- Permanent or long-term fisheries closure areas designed to protect complete ecosystems for stock recruitment, protect specialized ecosystems in their entirety, or protect species at risk through the in situ conservation of biodiversity as a whole, and which are demonstrated to be effective against fishery and non-fishery threats alike.
- Hunting reserves that maintain natural habitats and other flora and fauna as well as viable populations of hunted and non-hunted native species.
- Areas successfully restored from degraded or threatened ecosystems in order to provide important ecosystem services but that also contribute to effective biodiversity conservation, e.g., freshwater and coastal wetlands restored for flood protection.
- Areas that contribute to conservation because of their role in connecting protected areas and other areas of particular importance for the conservation of biodiversity, thereby contributing to the long-term viability of larger ecosystems (e.g., Waithaka & Warigia Njoroge, 2018*).

c. Primary conservation

A site that has a primary conservation objective and delivers effective biodiversity conservation but is not reported as a protected area could be recognized as an OECM if the governance authority so wishes.

Examples can include

- some territories or areas (marine, freshwater, or terrestrial) governed by Indigenous peoples, local communities, or private entities that have a primary and explicit

conservation objective and deliver the in situ conservation of biodiversity, but where the governing body wishes the territories or areas to be recognized and reported as OECMs rather than as protected areas

- privately conserved areas, which are managed with a specific conservation objective but which are not recognized as protected areas under national legislation (Mitchell et al., 2018), e.g., ecosystem restoration areas in Indonesia (Utomo & Walsh, 2018*)
- areas that include Key Biodiversity Areas managed in ways that deliver long-term in situ conservation of biodiversity through, for example, regulation or other effective approaches
- some permanently set-aside areas of a managed forest, such as old-growth, primary, or other high biodiversity–value forests, which are protected from both forestry and non-forestry threats
- some natural areas that are managed by universities for biological research

Examples of areas unlikely to meet the criteria

The following areas and management regimes are unlikely to qualify as OECMs:

- Small, seminatural areas within an intensively managed landscape with limited biodiversity conservation value, such as municipal parks, formal/domestic gardens, arboreta, field margins, roadside verges, hedgerows, narrow shoreline or watercourse setbacks, firebreaks, recreational beaches, marinas, and golf courses.
- Forests that are managed commercially for timber supply and are intended for logging, even though they may have some conservation value and support some species of interest. Such areas should be considered as contributing to Aichi Target 7.
- Fishery closures, and other spatial fisheries management tools, including, but not limited to, fishing quotas or catch limits, temporary set-asides, or gear restriction areas with a single species, species group, or habitat focus that may be subject to periodic exploitation and/or be defined for stock management purposes, and that do not deliver in situ conservation of the associated ecosystems, habitats, and species with which target species are associated. Such areas should be considered as contributing to Aichi Target 6.
- Agricultural lands that are managed in a manner that limits the in situ conservation of biodiversity. This may include, for example, pastures that are grazed too intensively to support native grassland ecosystems or species, or grasslands replanted with monocultures or nonnative species for the purposes of livestock production.
- Temporary agricultural set-asides, summer fallow, and grant-maintained changes to agricultural practice that may benefit biodiversity.
- Conservation measures that apply to a single species or group of species over a wide geographical range, such as hunting regulations or whale-watching rules; these are

better considered as being part of wider species conservation measures (Targets 5, 6, 7, and/or 12).

The above examples are not meant to be exhaustive or without exception, but are intended to indicate which kinds of areas may qualify as OECMs and which would not. When considering any area, the definitions and criteria applied during the four-criteria screening test will be the appropriate route to ensure consistent identification of candidate OECMs. Given the diversity of situations where OECMs can occur, it is essential that all areas being assessed should be screened carefully to evaluate each specific case.

APPENDIX II

Coverage and number of OECMs and protected areas reported per country and territory

COUNTRY OR TERRITORY	NUMBER OF OECMs	NUMBER OF PAs	MARINE COVERAGE BY OECMs	MARINE COVERAGE BY PAs	LAND COVERAGE BY OECMs	LAND COVERAGE BY PAs
Morocco	314	89	0.03	0.68	30.93	2.20
Philippines	178	273	1.88	1.74	1.42	15.87
Canada	130	9,000	4.94	8.86	0.78	11.91
South Africa	17	1,642	0.04	15.50	6.97	8.69
Guernsey	10	4	0.01	0.39	6.62	4.01
Eswatini	8	14	0.00	0.00	0.47	4.26
Algeria	5	73	0.00	0.07	49.61	4.64
Colombia	3	1,341	0.00	17.17	0.02	16.91

APPENDIX III

Methodology used to generate the findings presented in Section 3 of this report

The analyses are based on the April 2022 WDPA and WD-OECM (UNEP-WCMC & IUCN, 2022). For count statistics (those not involving spatial analysis), protected areas with the status "Proposed" or "Not Reported" have been excluded. For statistics derived from spatial analysis, the following have also been removed: protected areas with the designation "UNESCO MAB Biosphere Reserve" and protected areas and OECMs represented by point data with no reported area.

Point data with a reported area have been buffered to that reported area. All spatial analyses use dissolved versions of the WDPA and WD-OECM to prevent double-counting of overlapping areas. For spatial analyses involving both protected areas and OECMs, areas of overlap between the two have been counted as protected areas only. Areas have been calculated in the Mollweide projection.

Global and national coverage statistics were calculated using the methodology available here: protectedplanet.net/en/resources/calculating-protected-area-coverage. All other spatial analyses involved an additional step in which the datasets used were clipped to national boundaries.

A minority of protected areas and OECMs have multiple zones. For count statistics involving tabular fields where the data differs between different zones of a single protected area or OECM, the data associated with the largest zone has been used. An exception is the GIS_AREA field, where the data has instead been summed to provide a total area for the protected area or OECM.

Statistics that summarize sites according to mean area or variation in area are based on the GIS_AREA field and are therefore derived from polygons only; e.g., the analysis of the number of OECMs per governance type and their mean area are based on the subset of OECMs for which polygon data is available: a total of 529 OECMs rather than the full dataset of 665 OECMs.

For the analysis of ecological condition, a buffer of 10 km was created around each OECM in order to analyze the ecological condition of the area immediately surrounding the OECMs. Protected areas were erased from both the OECMs and their buffers to ensure that the results were not affected by the presence of adjacent or overlapping protected areas.

Other datasets used were

- national boundaries: a dataset combining Exclusive Economic Zones (VLIZ, 2014) and terrestrial country boundaries (World Vector Shoreline, 3rd edition, National Geospatial-Intelligence Agency). A simplified version of this layer has been published in Nature Scientific Data journal (Brooks et al., 2016)
- terrestrial ecoregions: Dinerstein et al., 2017
- marine ecoregions and pelagic provinces: Spalding et al., 2007; 2012
- KBAs: March 2021 WD-KBA (BirdLife International 2021); for the analysis of the contribution to coverage of KBAs, only KBAs represented by polygons were used
- ecological condition: Biodiversity Intactness Index

APPENDIX IV

CASE STUDY I
DIXIE COMMUNITY CONSERVATION AREA, SOUTH AFRICA

The Dixie Community Conservation Area covers 1,329 hectares and is situated between two protected areas and within the Kruger to Canyons Biosphere Region in northeast South Africa.[29] The site is governed by a traditional authority and supported by the NGO Conservation South Africa (CSA). CSA is helping the community develop and implement a management plan aimed at improving grassland grazing and burning regimes for livestock farming, which is compatible with the conservation of the natural grasslands and savannah habitat and associated species. Conservation is therefore a secondary management objective. The long-term objective is to partner the community's livestock production with a corporate-based, market-driven economic incentive scheme called Meat Naturally. This site has demonstrated the opportunity to use community–private sector partnerships, under the sustainable agriculture and wildlife economies, to drive area-based conservation outcomes and recognize and support these sites as OECMs. This site illustrates that conservation outcomes can be achieved when governance mechanisms are supported through appropriate means and management objectives are intentionally aligned with sustainable land use practices.

The Dixie community in the Kruger to Canyons Biosphere Region (South Africa) is managing its rangelands in ways that provide sustainable livelihoods and deliver long-term conservation outcomes. © ReWild Africa

[29] More information about the Dixie Community Conservation Area can be found in the film *Nature Stewardship Beyond Protected Areas: OECMs*, available here: youtube.com/watch?v=kL3h6MPRtwI.

CASE STUDY II
WAFO WAPI, ANCESTRAL TERRITORY OF CONSERVATION, CHILE

Guafo Island, locally known as Wafo Wapi, is vital to the life, livelihoods, and culture of Williche communities in Southern Chile and a hotspot of marine mammal diversity. Ten Mapuche-Williche communities under the initiative Wafo Wapi, Ancestral Territory of Conservation have submitted a request to declare 299,129 hectares of Guafo Island a Coastal and Marine Indigenous People Space (ECMPO). ECMPOs, under the Chilean Law on Lafkenche, allow Indigenous communities to request recognition and assignment of a coastal and marine space for their administration, indefinitely in time, based on the accreditation of their customary use. The declaration of the Guafo Island as an ECMPO will prevent the expansion of high-impact industrial activities such as salmon farming. WWF Chile supports the Wafo Wapi Indigenous communities in managing this space effectively.

Guafo artisanal fishermen returning to shore in Quellón, Chiloe. © Evelyn Pfeiffer/WWF Chile

CASE STUDY III
ARAVALLI BIODIVERSITY PARK, INDIA

The Aravalli Biodiversity Park (India) covers approximately 392 acres. The highly denuded patches of the abandoned mining site have been transformed into a lush green forest in 10 years through the concerted efforts of the citizens and the Municipal Corporation of Gurugram (MCG). In 2010, an NGO of concerned citizens, IamGurgaon (IAG), took up the initiative of ecological restoration of the area by developing it into a Biodiversity Park. While the park is owned by the state and governed by the MCG, the day-to-day management of the park was done by IAG until 2020. Since 2011, with the engagement of 68 corporate entities, more than 50 schools, thousands of children, and citizens, about 145,000 plants have been planted in the park. With over 400 species of native plant species, it is envisioned as a pristine habitat for birds and wild animals of the Northern Aravalli. In 2021, MCG formally handed over the conservation of the park to Hero MotoCorp for the next decade. Aravalli Biodiversity

Park was declared India's first OECM in 2022, highlighting India's efforts to conserve biodiversity effectively through OECM recognition.

Aravalli Biodiversity Park, India © TVS Group / WWF-India

CASE STUDY IV
BUKIT TIGAPULUH, INDONESIA

WWF-Indonesia and two partners manage Bukit Tigapuluh, which is an ecosystem restoration concession (ERC) in Jambi Province. The site covers 38,565 hectares of dry lowland forest in one of the last large blocks of forest left in central Sumatra. Sumatra's forests are under severe deforestation pressure, and the concession is some of the last habitat for Sumatran elephants and tigers. The concession is managed, as required by forestry law, by a commercial company, PT ABT, that is managed by the three partners. PT ABT is required by law to generate revenue, but without timber extraction, and to provide social benefits to Indigenous people and local communities who live in the areas. Since it was established, PT ABT has reduced the deforestation rate, secured critical wildlife habitat, signed partnership agreements with communities to recognize their traditional land tenure, and developed income streams that demonstrate the value of intact forests to local communities. ERCs, of which there are 16 in the country, appear to meet the OECM criteria. Managers from two ERCs are in discussions about elevating the potential of this management regime as OECMs to the government of Indonesia.

Isong, a honey farmer from the Talang Mamak tribe, climbs a Sialong tree to collect honey. © Neil Ever Osborne/WWF-US

CASE STUDY V
FISHING REFUGE ZONES, MEXICO

Colleagues in WWF-Mexico are working with government agencies and local partners to establish networks of Fishing Refuge Zones (ZRPs). ZRPs are collaborative fishing management instruments for the conservation of ecosystems and the repopulation of marine commercial species occurring outside protected areas. The first networks of ZRPs, the San Cosme-Punta Coyote corridor and Bahía Espíritu Santo, were established in 2012 after years of collaboration between fishers and civil society organizations to convince the federal authority to grant legal recognition to the protection zones. Since then, more fishers have joined the initiative to establish shelters in or near their towns. By 2020, 14 networks of ZRPs were found on the coasts of Baja California Sur, Sonora, Sinaloa, Quintana Roo, and Yucatán. The most important qualities of this kind of potential OECM in Mexico is that it arises through a participatory, locally led process, and is based on adaptive management over time.

A fisher in a Fishing Refuge Zone. © Causa Natura

APPENDIX V

Illustrative examples of OECM areas, motivations, opportunities, and challenges by governance type.

POTENTIAL AREAS	POSSIBLE MOTIVATIONS	OPPORTUNITIES[30]	CHALLENGES
Government			
Forests, watershed protection areas, wetlands, fishery closures, war graves, archaeological sites, military areas.	To achieve the spatial and qualitative elements of Target 3.	Include a range of areas in governmental plans to achieve Target 3, and thereby enhance their security and support and improve management.	Some government agencies may attempt to report as OECMs areas that do not meet the CBD criteria (equity or ecological) or use OECMs as an excuse for protected area downgrading, downsizing, or degazettement.
Indigenous peoples and local communities			
Whole or parts of territories and areas, including sacred sites, community and locally controlled forests for timber and non-timber forest uses, medicinal plant conservation areas, rangelands, pastures, lakes and rivers, transhumant migration routes, and locally managed marine areas (LMMAs).	To increase visibility, security, and/or appropriate forms of support of governance and management systems and their territories and areas, including through respect for human rights, institutions, values, and practices; improved legal tenure and usufruct rights (including to exclude nonsanctioned uses of their territories and areas); better livelihood opportunities; and exposure for various reasons—such as to enhance security or increase visitors, capacity development, and financial and nonfinancial contributions.	Subject to local context, greater visibility, territorial security, respect for rights, and appropriate support lead to fewer human rights abuses and provide a foundation for more sustainable livelihoods and ways of living defined by local peoples and their cultures.	The OECM framework may be applied to their territories and areas without their consent or in ways that do not accord with locally defined and culturally appropriate knowledge, innovations, practices, and preferences. The OECM framework may also be used to intensify processes of elite capture within communities.

[30] This column does not include the biodiversity, ecological, or climate benefits that will be the same for all types of OECMs.

Private entities			
A broad spectrum of lands and waters owned by individuals, families, foundations, and organizations, including religious institutions and universities.	To underscore the intrinsic natural value of their areas, to be credited for their conservation of particular species or contribution to national and global biodiversity targets, and as a means to secure the conservation value of the areas into the future.	Bring actors and areas that are currently outside the conservation estate into the broader framework and, subsequently, support them in managing these areas more effectively.	The OECM framework may be applied to their areas without their consent or in ways that do not accord with their locally defined preferences and approaches.
Sectoral actors, including those involved in farming, forestry, fisheries, pastoralism, and infrastructure			
Riparian reserves and high conservation value (HCV) areas in agricultural areas, set-asides and other undisturbed areas (rivers, lakes, wetlands) within forestry concessions or shade coffee plantations, areas within commercial rangelands, fishery closures or reserves, wind farms, and areas identified for their conservation values in and around infrastructure projects.	To get credit or secure financial credits for sectoral operations that deliver conservation outcomes, provide positive publicity, or provide ESG reporting opportunities, including through green labeling.	Bring actors and areas that are currently outside the conservation estate into the broader framework and, subsequently, support them in managing these areas more effectively.	Some sectoral actors may attempt to report as OECMs areas that do not meet the CBD criteria (equity or ecological).

APPENDIX VI

Graduated potential for WWF-US support and engagement with OECMs, from highest to lowest.

Type of conserved area	Potential for WWF-US support for expansion
Indigenous territories	High potential, ensuring FPIC and other Environmental and Social Safeguards (ESSF) requirements are met, helping to strengthen Indigenous rights if needed (e.g., land titling), and supporting Indigenous peoples in strengthening their capacities to equitably and sustainably manage, monitor, and benefit from their ecosystems.
Community-conserved areas	High potential, ensuring FPIC and other ESSF conditions, helping to strengthen community rights if needed (e.g., land titling), and supporting communities' capacities to equitably and sustainably manage, monitor, and benefit from their ecosystems.
Terrestrial, marine, and riparian corridors	High potential; important landscape/riverscape and seascape approach including for species movement in response to climate change. Requires working with local stakeholders, ensuring FPIC and other ESSF conditions, strengthening rights if needed, and supporting local communities/Indigenous peoples in equitably and sustainably managing, monitoring, and benefiting from their ecosystems.
Production forests	High potential in areas set aside for conservation, especially through Forests for Climate and People and Forest Positive, ensuring application of ESSF and equitable benefits to local communities/Indigenous peoples.
Marine areas under customary governance	High potential, ensuring FPIC and other ESSF conditions, strengthening rights if needed and supporting local communities/Indigenous peoples in equitably and sustainably managing, monitoring, and benefiting from their ecosystems.
Marine and freshwater fisheries management areas	High potential to increase fish stocks and biomass in both marine fisheries and inland fisheries in rivers and wetlands, scaling up approaches through work with local stakeholders; ensuring FPIC and other ESSF conditions, strengthening rights if needed, and supporting local communities/Indigenous peoples in equitably and sustainably managing, monitoring, and benefiting from their fisheries.

River stretches, riparian areas, and watersheds	High potential; models exist in Pakistan, Colombia, and the US that can be studied, adapted, and replicated. If necessary, facilitate upstream/downstream stakeholder platforms, ensure FPIC and other ESSF conditions, and support local communities/Indigenous peoples in equitably and sustainably managing, monitoring, and benefiting from their ecosystems.
Environmental flows and water reserves	High potential for conserving freshwater systems in terms of allocation of water for the environment and human domestic uses over the long term (e.g., successfully applied in Mexico); need to ensure FPIC and other ESSF conditions, and support local communities/Indigenous peoples in equitably benefiting from their ecosystems; if needed, facilitate upstream/downstream stakeholder platforms.
Rangeland	Good potential in landscapes where grazing contributes to or is consistent with conserving biodiversity, ensuring application of ESSF and equitable benefits to local communities/Indigenous peoples; also opportunities to work with private operators.
Water fund management areas	Some potential in landscapes/waterscapes for management and funding support for source water for downstream use; best if combined with water allocation modeling, such as conducted for water reserves. Facilitate upstream/downstream stakeholder platforms, ensure FPIC and other ESSF conditions, and support local communities/Indigenous peoples in equitably and sustainably managing, monitoring, and benefiting from their ecosystems.
Sacred natural sites	Relatively low potential for conservation, as these areas are usually small, though they could have important local biodiversity value as part of a larger landscape, riverscape, or seascape. Important local cultural/religious values must be respected, ensuring access to sites for traditional users.
Conservation easements	Possible? Not traditionally an area where WWF-US works, but might be worth investigating.
Wind farms	Low potential due to small size and potentially negative ecological impacts, though could have local value as part of a landscape or seascape approach.
Shipwrecks	Low potential due to small size, though could have high local biodiversity or livelihood value within a seascape.
Security areas	No potential—military activities are excluded from WWF support by the ESSF.