AREA-BASED CONSERVATION

20 QUESTIONS ON THE 30x30 TARGET

A STATUS REPORT

The 16th Conference of Parties to the Convention on Biological Diversity will begin on October 21, 2024 at Cali, Colombia. Parties will monitor progress towards the 23 Targets of the Kunming-Montreal Global Biodiversity Framework that the world needs to meet by 2030. Target 3, popularly known as the 30x30 Target, is ambitious. This report identifies the major issues that need to be monitored in the coming years.

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A STATUS REPORT

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Introduction

In principle, the Convention on Biological Diversity values communities that have protected biodiversity for generations. However, over the years, communities have been left out of efforts towards conservation and sustainable use of biodiversity. As a consequence, it is rare to find many instances where benefits arising out of the use of biodiversity have been shared with the communities.

The Kunming-Montreal Global Biodiversity Framework (KMGBF), adopted in December 2022 at the 15th Conference of Parties to the Convention on Biological Diversity, tried to change this. Indigenous Peoples and Local Communities (IPLCs) have been included in seven of the 23 Targets and one of the four Goals, set under the Framework. It has been less than two years since the Framework has been in place. The action on the ground is still a mere sliver of what is needed in a just world.

Target 3 of KMGBF is the most ambitious of the 23 Targets. Under it, members have committed to protect 30 per cent of the land and oceans by 2030. Till end of September 2024, the number is just a little more than 17.51 per cent on land and 8.46 per cent in the oceans.

Two things are needed to achieve this target—land and money. Currently, nations are scrambling to find enough of both of these. Land is simply not available and what is available is under community control. This is the reason that the Framework has been devised to be more inclusive of the communities. This is simpler said than done. For the IPLCs, land is a source of livelihood and any change in the way that they can use this resource would mean loss of income. Therefore, ways have to be found to compensate the people, and money is needed. Money has always been in short supply when it comes to biodiversity issues.

The question now is how to rework the model of conservation so that people are not just token participants, but are custodians and managers. Currently, what we are used to is 'fortress conservation', where communities have been evicted from their land. Sustainable use of these protected areas has not benefited the people. Tourism in these places has reaped riches only for the rich. The degree of inclusion is still unclear and the 30x30 Target could worsen the situation for the communities.

This report by the Centre for Science and Environment is our effort to provide an overview of the situation on the ground and to start the conversation on the way ahead.

Overall, this is what we have found:

1) If we follow CBD's definition of protected areas (PAs), we are still a long way off the target. Most of the biodiversity is located in just 20 out of the nearly 200 countries on earth. Even in these countries, the land belongs to Indigenous peoples and Local Communities (IPLCs). If we include the land which is currently under the control of IPLCs, we have already achieved it. Though there is a lot of land under the control of IPLCs, it does not legally belong to them. There are demands that the land rights are provided to the communities but there is not much talk about this.

2) The concept of Other Effective Conservation Measures (OECMs) has been promoted under the Framework. Under this, private land can be included in the tally for protected areas. While this could work, it is a new concept and requires careful monitoring in the coming years. As these are small pieces of land, they are not connected and as connectivity is considered important for conservation, the efficacy of OECMs might not be as much as expected.

3) The Global South is rich in biodiversity and it is logical that more area would need to be protected here than in the Global North. Developed countries have reluctantly committed to providing US $20 billion per year to developing countries by 2025. More would be needed to ensure equity.

4) Protected areas require money but this is in short supply. The Global Environment Facility (GEF), which is tasked to provide financial support to the Framework, has already started funding projects involving protected areas. GEF supports co-financing under which countries are supposed to generate more funds using their original fund. There are concerns that developing countries might not be adept at this. Also, this co-financing might be restrictive as it is generally private money.

5) Similarly, efforts are being made by philanthropies to plug the financial gap. This is good but there are concerns that these philanthropies might not understand the biodiversity issues as much as needed and they are being advised by groups and experts who have supported 'fortress conservation' so far. There is need to monitor this carefully over the coming years.

6) Protected areas are being used to implement Nature-based Solutions (NbS)—ways to pay for nature for climate benefits or biodiversity conservation. In recent years, these efforts have been found not only to be inadequate but even

worse, greenwash. The challenge is to use the market for conservation but in ways that benefit land and communities.

7) Over the years, it has been observed that protected areas fail to conserve biodiversity to the extent needed. We need to ensure that the existing PAs function better and the new ones are managed differently so that they do not follow the same path.

Through the 30-plus years since Parties adopted the Convention on Biological Diversity, efforts towards meeting its goals—conservation of biodiversity, its sustainable use, and sharing of benefits arising out of this use with communities that have protected it for centuries—is the key to the future. We need to work on this objective and to seriously rework the model of conservation so that the habitats of people are also the troves of biodiversity conservation for the world.

1. What is the 30x30 Target?

At CoP15 of the Convention on Biological Diversity (CBD), member countries adopted the Kunming-Montreal Global Biodiversity Framework (KMGBF). KMGBF has 23 targets that need to be met by 2030 and four overarching goals that need to be met by 2050. Target 3 of this framework, now called the Biodiversity Plan, mandates that at 30 per cent of land, inland water, and coastal and marine areas are conserved.

The idea was first floated by the High Ambition Coalition for Nature and People (HAC for N&P) in September 2019 at the UN General Assembly. HAC for N&P is an intergovernmental group, officially launched with over 50 members at the One Planet Summit on January 11, 2021, and co-chaired by Costa Rica and France. As on August 20, 2024, 118 countries are part of this group which is co-hosted by the Global Environment Facility (GEF) and the World Resources Institute in Washington DC.

The target is based on the study '*A global deal for nature: Guiding principles, milestones, and targets*' published in the journal *Science* on April 19, 2019.[1] The study proposed the Global Deal for Nature (GDN) and linked it to the Paris Climate Agreement. The GDN targets 30 per cent of Earth to be formally protected and an additional 20 per cent designated as climate stabilization areas, by 2030, to stay below 1.5°C. In September 2020, the same group of researchers published a report in *Science Advances*, entitled 'A "Global Safety Net" to reverse biodiversity loss and stabilize Earth's climate' in which they identified the exact areas that need to be protected.[2] Through this analysis, they identified an additional 35 per cent of unprotected lands for conservation, bringing the total percentage of protected nature to 50 per cent. However, 35.4 per cent of this 50 per cent land overlaps with indigenous territories and this is one of the main reasons that indigenous people are being involved in the efforts to meet the Biodiversity Plan.

The 50 per cent target, or the half-earth principle, was earlier proposed by American biologist E.O. Wilson in his 2016 book *Half-Earth: Our Planet's Fight for Life*.

Target 3 addresses issues that were also addressed by Aichi Biodiversity Target 11. This is a global target; not every country needs to reach 30 per cent, but it assumes some countries will protect over 30 per cent.[3] Targets 1 and 2 support Target 3; while Target 1 aims to 'plan and manage all areas to reduce biodiversity loss', Target 2 leans towards restoring 30 per cent of all degraded ecosystems.

It is said that the 30x30 Target is not as ambitious as it should have been. Experts say that this goal has already been met. Existing protected areas (17.5 per cent of the earth's surface)[4] and areas managed by indigenous peoples (around 25 per cent)[5] made more than the required 30 per cent of the earth's surface. Advocates of the science-based Half Earth target argue that the 30x30 target conceived between 2019 and early 2020 is now an outdated figure. According to them, a low target provides a loophole and biodiversity-rich countries such as Brazil and Indonesia are pushing for national targets around 30 per cent, which allows for destruction.

Text of Target 3
Conserve 30 per cent of Land, Waters and Seas[6]

Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.

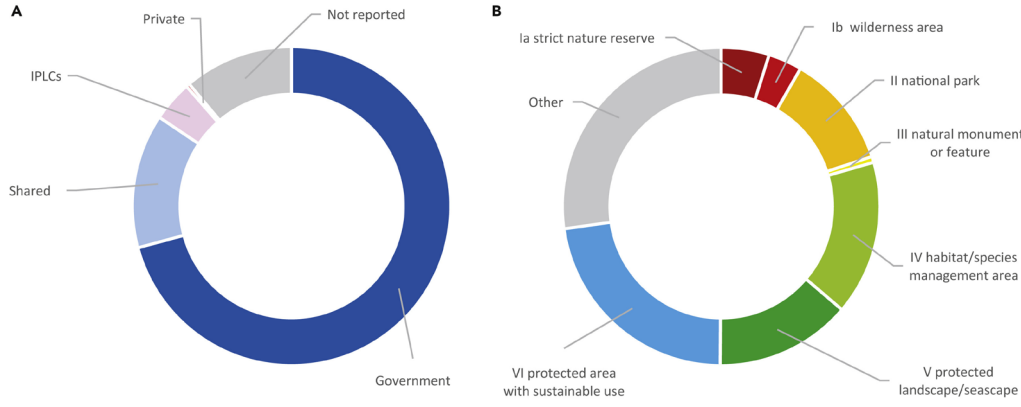
2. What are protected areas?

A protected area is 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. Protected areas are set up in areas that are important for biodiversity and ecosystem functions and services. These include areas rich in species and threatened species, and threatened biomes and habitats (see *Figure 1*).

The following are the three types of protected areas:
Protected areas: The Convention on Biological Diversity (CBD) defines a protected area as a geographically defined area that is designated or regulated and managed to achieve specific conservation objectives. The International Union for Conservation of Nature (IUCN) has established a categorization of protected areas.

Other effective area-based conservation measures (OECMs): OECMs are geographically defined areas other than protected areas that are 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, socioeconomic and other locally relevant values. OECMs are not only for wild animals and plants, but can help achieve several conservation functions. In 2010, other effective area-based conservation measures (OECMs) were recognized as a tool to meet Aichi Target 11. A definition of OECMs was adopted in 2018 by Parties to the CBD.

Figure 1: Area-based conservation governance and management



Source: Georgina G. Gurney et al., 2023. 'Area-based conservation: Taking stock and looking ahead' in *One Earth*, Volume 6, Issue 2. https://www.sciencedirect.com/science/article/pii/S2590332223000404

Timeline: History of protected areas

1872

The modern world's first national park, Yellowstone National Park, was established in the US.

1933

The International Conference for the Protection of Fauna and Flora was held in London, and the idea of global policy on area-based conservation was discussed.

1958

The World Commission on Protected Areas was created by the International Union for Conservation of Nature (first global conservation organization, established in 1948).

1962

The First World Conference on National Parks took place, and the development of the national park movement was encouraged worldwide. It set definitions and standards for representative systems of protected areas.

1972

The Second World Conference on National Parks focused on the effects of tourism on protected areas (PAs); park planning and management; and social, scientific and environmental problems within national parks. The discussions gave rise to the UNESCO World Heritage Convention and the Ramsar Convention on Wetlands of International Importance.

1982

The World National Parks Congress called for nations to protect 10 per cent of their area, including marine and freshwater areas.

1992

At the Fourth World Congress on National Parks and Protected Areas, discussions were on the identification of sites of importance for biodiversity conservation. The Caracas Action Plan synthesized the strategic actions for PAs over the decade 1992–2002 and aimed to extend the PA network to cover at least 10 per cent of each major biome by 2000.

2002–10

The CBD Strategic Plan set a target, calling for 10 per cent coverage.

2003

The Fifth World Parks Congress led to the Durban Action Plan and Durban Accord, both of which informed the Convention on Biological Diversity's successful Programme of Work on Protected Areas.

2010

In 2010, at COP10 in Aichi Prefecture, Japan, the CBD Parties adopted a comprehensive global area-based conservation target under the 2011–20 strategic plan. Aichi Target 11 called on Parties to conserve at least 17 per cent of terrestrial and 10 per cent of marine areas by 2020. The CBD Parties introduced the concept of Other Effective Area-based Conservation Measures (OECMs).

2013

The Third International Marine Protected Areas Congress deliberated on strategies to meet CBD Aichi Target 11 under the Strategic Plan for Biodiversity 2011–2020, which calls for at least 10 per cent of all coastal and marine areas to be managed as conservation or PAs by 2020.

2014

The IUCN World Parks Congress 2014 included a series of seven moderated public debates, termed World Leaders' Dialogues. The principal outcome document of the dialogues was the Promise of Sydney which hoped to demonstrate that PAs are one of the best investments people can make for the future of their planet and themselves.

2022

The CBD Parties adopted the Kunming-Montreal Global Biodiversity Framework, which outlines the global area-based conservation targets. Target 3 mandates protection of 30 per cent of the planet by 2030. Although limited information is available on the efficacy of protected areas for safeguarding habitats and the biodiversity in it, they continue to be used as a method of conservation and are used as a proxy for conservation efforts.

2018

The definition of OCEM was adopted.

Indigenous and traditional territories: Indigenous peoples and local communities often own, occupy and/or manage areas with unique and significant biodiversity. The appropriate recognition of these areas could make important contributions towards this target. Any decisions regarding these areas, however, must recognize and respect the rights of Indigenous peoples and local communities over them and include obtaining free, prior and informed consent.

IUCN and the CBD recognize protected areas on the basis of management styles and divides them into six categories, including:[7]

Ia. Strict nature reserve: Strictly protected for biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are controlled and limited to ensure protection of the conservation values

Ib. Wilderness area: Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, protected and managed to preserve their natural condition

II. National park: Large natural or near-natural areas protecting large-scale ecological processes with characteristic species and ecosystems, which also have environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities

III. Natural monument or feature: Areas set aside to protect a specific natural monument, which can be a landform, sea mount, marine cavern, geological feature such as a cave, or a living feature such as an ancient grove

IV. Habitat/species management area: Areas to protect particular species or habitats, where management reflects this priority. Many will need regular, active interventions to meet the needs of particular species or habitats, but this is not a requirement of the category

V. Protected landscape or seascape: Where the interaction of people and nature over time has produced a distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values

VI. Protected areas with sustainable use of natural resources: Areas which conserve ecosystems, together with associated cultural values and traditional natural resource management systems. Generally large, mainly in a natural condition, with a proportion under sustainable natural resource management and where low-level non-industrial natural resource use compatible with nature conservation is seen as one of the main aims

The Convention on Biological Diversity (CBD) first recognized the critical role of protected areas when the Parties committed to a comprehensive and specific set of actions known as the Programme of Work on Protected Areas (PoWPA) in 2004. PoWPA emphasized equitable sharing of costs and benefits, recognized various governance types and gave prominence to ecological representation, management effectiveness and multiple benefits. PoWPA is considered to be the most implemented of CBD programmes and a successful initiative (see *Timeline—History of protected areas*).

Although limited information is available on the efficacy of protected areas for safeguarding habitats and the biodiversity in it, protected areas continue to be used as a method of conservation and are used as a proxy for conservation efforts.

3. What is the current status of protected areas?

As of September 2024, there are 305,014 protected areas and 6,485 Other Effective Area-based Conservation Measures (OECMs) on land and in inland waters along with 18,692 protected areas and 211 OECMs in the sea. So far, around 17.5 per cent of land (terrestrial and inland water PA + OECMs) and 8.46 per cent of oceans are protected (marine protected area + OECMs). Out of the total, only around 1,500 protected areas and OECMs are under the governance of indigenous peoples and local communities. This is just 1 per cent of the total number of sites (see *Map 1* and *Table 1*). With just around six years left till the deadline, it would be difficult to increase the area under protection.

The area under marine protected areas has gone down since 2022 as an update has been made to align the World Database on Protected Areas (WDPA) with the UN

Map 1: Protected areas and OECMs

Source: Protected Planet. https://www.protectedplanet.net/en/thematic-areas/wdpa?tab=WDPA, accessed on September 13, 2024.

Table 1: Trends in coverage of protected areas and marine protected areas, including other area-based conservation measures (1990–2024)

	1990	1993	2004	2010	2020	2022	2024
Terrestrial	10,422	11,516	17,078	20,246	22,455	22,906	23,612
Marine	1,789	1,892	2,558	9,015	28,058	29,941	30,648
Total	12,210	13,408	19,636	29,261	50,509	52,847	54,260

Note: Coverage in 1,000 sq. km for the selected year

Source: Protected Planet. Accessed on August 21, 2024 at https://www.cbd.int/doc/c/733c/eb83/f927e42ce5c325e8a0a1dd80/cop-15-inf-03-en.pdf

cartography guidance. In this process, data on eight protected areas in the Chagos Archipelago, previously submitted by the government of the United Kingdom of Great Britain and Northern Ireland, have been removed.[8]

Since the adoption of the Kunming-Montreal Global Biodiversity Framework (KMGBF), many countries have announced setting up of new protected areas (see *Table 2*). The UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) tool Protected Planet has documented these changes. They are in the process of bringing out the next edition of the Protected Planet report which is likely to be released at COP16. As of now, the consolidated data is not available.

Table 2: Change in status of protected areas between July 2018 and July 2024

Area/percentage of land covered	July 2018	July 2024
Number of protected areas	238,563	294,035
Percentage coverage of land by protected areas	14.9	16.11
Land area covered by protected areas (km^2)	20,000,000	21,728,787.87
Percentage coverage of ocean by protected areas	7.3	8.06
Ocean area covered by protected areas (km^2)	6,000,000	29,202,667.88
Percentage coverage of national waters (EEZ) by protected areas	16.8	18.43
Percentage coverage of Areas Beyond National Jurisdiction (ABNJ) by protected areas	1.2	1.44

Sources: Protected Planet, 2024. July update of the WDPA and WD-OECM, https://www.protectedplanet.net/en/resources/july-2024-update-of-the-wdpa-and-wd-oecm.
Protected Planet Report 2018, https://livereport.protectedplanet.net/pdf/Protected_Planet_Report_2018.pdf

WHAT IS HAPPENING IN INDIA?

India has four categories of protected areas—national parks, sanctuaries, conservation reserves and community reserves—that are provided legal sanctity by the Wildlife (Protection) Act 1972. The government maintains that they have more or less reached the target of protecting 30 per cent of its area. To make up for the remaining area, India is focusing on OECMs (other effective area-based conservation measures). The government is looking at lands under different ownerships, such as corporate lands and waterbodies, to be designated OECMs. These areas will remain in the ownership of companies who can finance the OECM themselves or look for external funds. India is also in process of identifying sites in marine areas that can be protected as an OECM, and agencies such as the Bengaluru-based Wildlife Conservation Society have been enlisted in the process to identify these sites. With the help of UNDP-India, India has created an OECM portal. Once an individual expresses interest by filling out an online form, UNDP teams visit the areas and evaluate them.

The Government of India with support from UNDP has developed a 14-category classification organized into three major subgroups—terrestrial, waterbodies and marine. The 14 categories cover the whole spectrum of potential OECMs in India, including unique agricultural systems, biodiversity parks, industrial estates, lakes and ponds, riverine waterbodies, important coastal biodiversity areas, etc.

An OECM should qualify under the following criteria:

- Criterion A: The area must not be recognized as a protected area.
- Criterion B: The area should be effectively governed and managed, and it should be geographically defined.
- Criterion C: The area should achieve sustained and effective in situ conservation of biodiversity
- Criterion D: The area should deliver associated ecosystem functions and services and cultural, spiritual, socioeconomic and other locally relevant values

As of now, the following 14 OECMs have been identified:

1. The Gadoli and Manda Khal Fee Simple Estates
2. The Jabarkhet Nature Reserve, Dehradun, Uttarakhand
3. Kadwa Kosi Floodplains, Bihar
4. Jagatpur Lake, Bihar
5. Aravalli Biodiversity Park, Haryana
6. Godrej's Pirojshanagar Mangroves, Godrej & Boyce Manufacturing Company Limited, Maharashtra
7. Coromandel Bird Paradise, Coromandel International Limited, Andhra Pradesh
8. TVS Motor Company Nature Conservation Reserve, Tamil Nadu
9. Anandwan Biodiversity Park, Maharashtra
10. Chadva Rakhal, Gujarat
11. SAI (Save Animals Initiative), Karnataka
12. Apatani Landscape, Arunachal Pradesh
13. Zabo Farming System, Nagaland
14. Saffron Heritage System, Kashmir

This shift to private land could be good considering that so far the process of protecting land has been problematic. In 2020, an interactive map 'Losing ground: How are India's conservation efforts putting the local communities in peril?'[9] by Pune-based non-profit Kalpavrikah, in collaboration with US-based online platform Global Environment Justice Atlas, which documents social conflicts around environmental issues, found that the number of protected areas increased from 67 to 870 between 1988 and 2020 in India. They also found that the 'protect and conserve model' displaced 13,450 families from 26 protected areas in two decades (1999–2020) in India. According to the three-year-long assessment, the 'protect and conserve model', fails to recognize the fundamental and customary rights of local and indigenous communities who have inhabited these areas for centuries. According to the authors the model is often in violation of laws that aid conservation such as The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act [FRA], 2006, which recognizes the need for a more inclusive form of forest governance, including co-management of PAs. The researchers found that community forest rights under FRA have been recognized in only three of the 26 studied PAs.

The existing protected areas are not in a good condition. A good example of this is the Dachigam National Park in Kashmir, which is at risk from increasing urbanization in its vicinity. A new study, 'Quantifying the landscape changes within and outside the Dachigam National Park, Kashmir Himalaya, India using observations and models',[10] published in the journal *Environmental Monitoring and Assessment* on September 4, 2023, reveals that built-up areas have expanded by 325 per cent near the park over the last 55 years, resulting in habitat degradation and loss. The study was conducted using remote sensing and Geographic Information Systems (GIS) technology, aided with landscape models. The findings revealed that inside the park, the forest cover decreased by 7 per cent, and there was a notable reduction in natural habitat both within (39 per cent) and outside (30 per cent) the park, indicating habitat fragmentation. The research also predicted a 10 per cent increase in urban development in the future that could induce degradation of forests, shrublands and pastures. Dachigam National Park is home to the critically endangered hangul (Kashmir stag), along with several other species such as Asiatic black bear, leopard, langur, rare medicinal plants and a variety of endemic bird species.

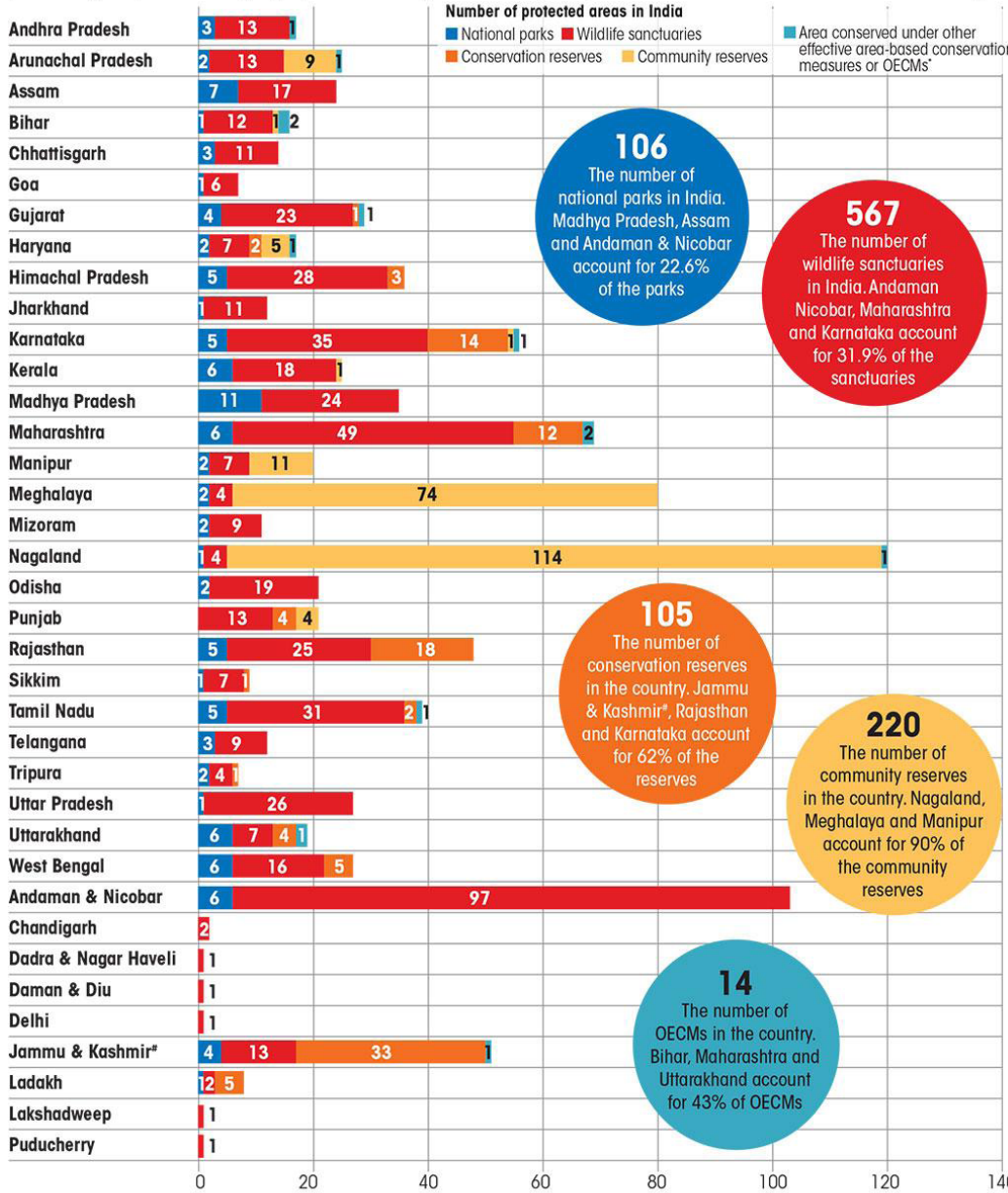
A scientific assessment by a consortium of international scientists found that many protected areas for wildlife in the country were too small to maintain a full complement of species. The article 'Protected areas and biodiversity conservation in India' published in the international journal *Biological Conservation* in September 2019 highlights the importance and potential of tourism and how these benefits must go to locals.

Areas considered protected under different acts are as follows: national parks, wildlife sanctuaries, conservation reserves and community reserves as per Wildlife (Protection) Act, 1972; Reserve Forests, Protected Forests and Village Forests as per Indian Forest Act, 1927; Lakes and Water Bodies as per Wetland (Conservation and Management) Rules, 2017; Biodiversity Heritage Site as per Biological Diversity Act, 2002. In 2020, India recognized all its Reserved Forests under the protected area network.[11]

Figure 2: Protected areas in India

Sound numbers

With little over 1,000 protected areas and several upcoming OECMs, India is likely to meet the global target of protecting 30 per cent of geographical area by 2030. The quality of the conserved areas remains a challenge



Note: *Other effective area-based conservation measures are areas other than protected areas that help in-situ conservation of biodiversity;
#Considered a Union Territory; Source: Wildlife Institute of India and UN Development Programme report on OECMs in India, released in June 2022

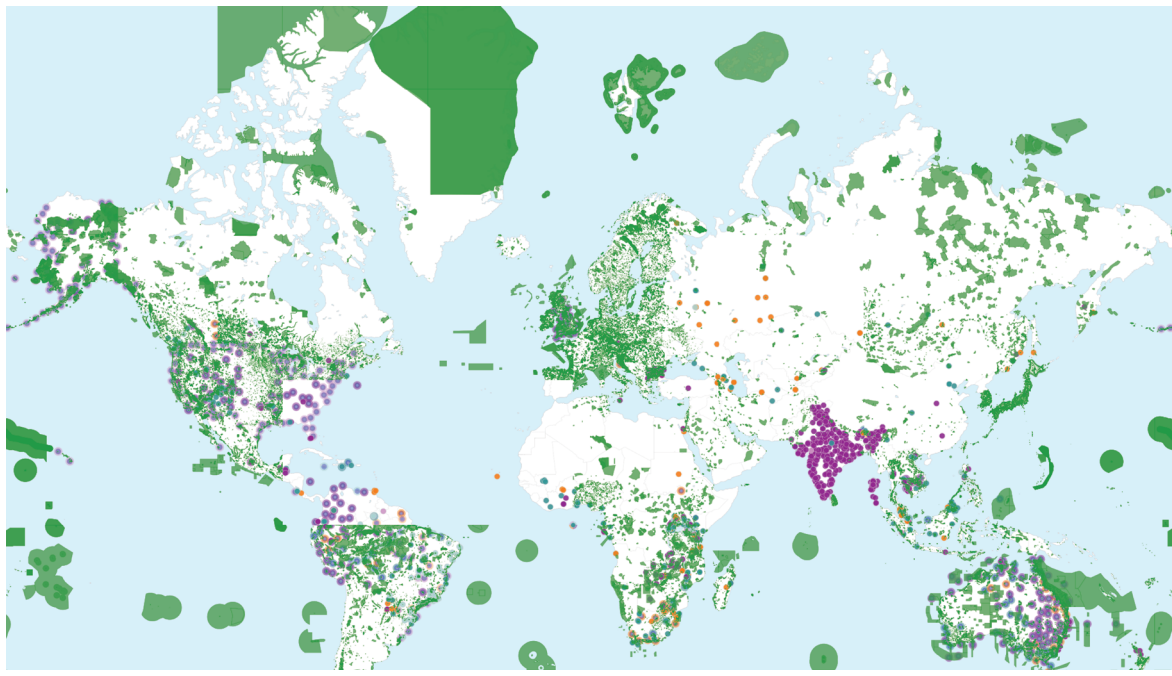
4. What is PADDD? Can it delay the achievement of the 30x30 Target?

Protected area downgrading, downsizing and degazettement (PADDD) refers to legal changes that decrease restrictions on the use of a protected area, shrink a protected area's boundaries or eliminate legal protections entirely. More than 3,000 enacted cases of PADDD have been documented in nearly 70 countries, for a total area of more than 130 million hectares (see *Map 2*).

These include cases even in iconic protected areas such as World Natural Heritage Sites. Researchers identified 23 such events in heritage sites that include Yosemite National Park, Arabian Oryx Sanctuary, Yasuní National Park and Virunga National Park, suggesting that more awareness is needed about the issue.[12]

For example, Yosemite National Park, one of the oldest national parks in the US, suffered as it was downgraded in 1892 to allow the construction of wagon roads

Map 2: Protected areas and PADDD events



Source: Conservation International and WWF. https://paddd.resilienceatlas.org. Accessed on September 14, 2024.

and turnpikes; in 1901 for electrical lines, dams and pipes; and in 1913 for the construction of the O'Shaughnessy Dam in the Hetch Hetchy Valley. The park was downsized in 1905 and 1906 to accommodate forestry and mining activities, removing legal protections from 1,309.30 km^2 (34 per cent of its original 3,886 km^2). The loss has been partially mitigated through efforts such as passing the Wilderness Act, 1964, when more than half (57 per cent) of the downsized lands were established as separate wilderness areas in 1964. Yosemite National Park is now 77 per cent of its original size; 19 per cent of the originally protected lands are now under other forms of protection.

Similarly, Virunga National Park, the oldest national park in Africa, was established in 1925 in the Democratic Republic of the Congo (DRC). The park, also known for its megafauna, notably mountain gorillas, elephants, buffalo and hippopotamuses, was partially downgraded in 2010 for oil exploration in oil block V, which overlaps with 3,897 km^2 of the park. In response to opposition from UNESCO and civil society, SOCO International, an oil and gas exploration and production company, headquartered in London, halted oil exploration in Virunga in 2014, but advised the DRC government to downsize the park. In 2015, the DRC parliament passed the new Hydrocarbon Code enabling oil exploration to be authorized within protected areas (PAs), which constituted a systemic downgrade of all PAs in the country. In 2018, the government proposed to downsize 21 per cent (1,720.75 km^2) of Virunga to allow oil drilling. The company changed its name in 2019 to Pharos Energy Plc.

A study published in the journal *Ecological Economics* in October 2020 suggests that risks of PA size reductions are raised by lower travel costs (as implied by distances to roads and cities), which affect economic gains and enforcement; greater PA size, which affects enforcement; and more prior internal deforestation, which lowers the impacts of size reductions.[13]

In 2020, the IUCN World Conservation Congress, at its session in Marseille, France, called on all Members, including governments, to acknowledge the risks that unrestrained and poorly governed PADDD poses to biodiversity and geodiversity (natural diversity) conservation objectives; support the adoption of PADDD indicators as performance metrics for PAs under the CBD and encourage CBD Parties to report information on PADDD to a central, publicly accessible database (e.g. United Nations Environment Programme World Conservation Monitoring Centre).[14]

5. Why are protected areas important?

Protected areas provide important ecosystem services. Globally, 24.57 per cent of global above-ground biomass, 20.86 per cent of global below-ground biomass, 15.44 per cent of soil organic carbon and 7.07 per cent of marine sediment carbon are held within reported PAs and OECMs as per the 2021 report *Creating a Nature Positive Future: The Contribution of Protected Areas and Other Effective Area-Based Conservation Measures*. The report also points out that the average protection of watershed catchments in 19 geographic sub-regions is 21.9 per cent; values for individual sub-regions range from 2.9 per cent to 56.7 per cent.[15]

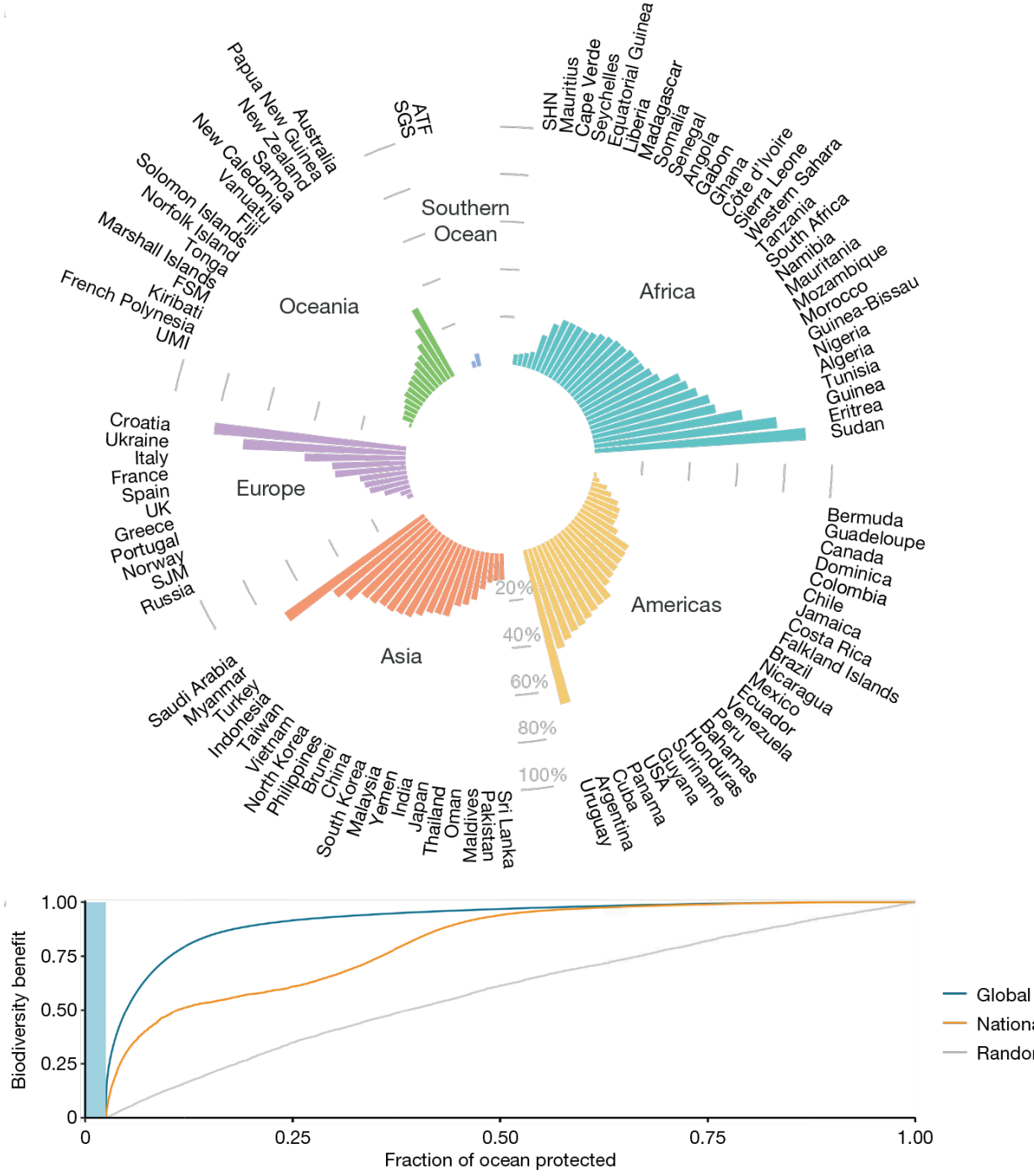
Assessments by the World Economic Forum and independent intergovernmental body Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) indicate that there could be grave economic losses if protected areas are not expanded. The World Bank estimates that due to impacts of a degraded environment, US $2.7 trillion of financial losses will occur without better nature protection.[16]

Water-related services of tropical forests are estimated to account for US $7000 per hectare annually.[17] This is 45 per cent of their total value, higher than benefits relating to timber, tourism or carbon storage. PAs already have significant contributions, with 33 of the world's largest cities sourcing clean water from PAs and nearly two-thirds of the world's population living downstream of PAs, which provide them with freshwater resources.

Other than financial benefits, protected areas are essential for protecting biodiversity. An analysis suggests that improvements in the status of area-based conservation resulted in 58 species removed from the Alliance for Zero Extinction list (in 2005–18). It is estimated that 21–32 bird and seven to 16 mammal species would have gone extinct without conservation action in 1993–2020.[18]

Water-related services of tropical forests account for US $7000 per hectare annually.[19] This is 45 per cent of their total value, higher than benefits relating to timber, tourism or carbon storage. PAs already have significant contributions, with 33 of the world's largest cities sourcing clean water arising from these areas.

Figure 3: Top 100 countries or territories contributing to biodiversity benefit in marine areas



Source: Enric Sala et al., 2021. Protected Planet, 2024. July update of the WDPA and WD-OECM, *https://www.nature.com/articles/s41586-021-03371-z*

Marine protected areas (MPAs) also play an important role in mitigating the effects of climate change by protecting and conserving blue carbon ecosystems. Blue carbon ecosystems—which include seagrass meadows, tidal marshes and mangroves—act as natural carbon sinks, absorbing carbon dioxide from the atmosphere. When well protected, they keep billions of tonnes of CO_2 and other greenhouse gas emissions from reaching the atmosphere. It has been calculated that despite covering less than 1 per cent of the world's oceans, World Heritage marine sites protect at least 21 per cent of the global area of blue carbon ecosystems.[20]

Efforts to improve MPAs will also improve availability of fish. A recent study in no-take marine protected areas, where removing or destroying natural or cultural resources is prohibited, found an increase in fish populations by 42 per cent while fishing was unsustainable in surrounding areas.[21] The study recorded fish catches for 24 years across a dozen fish-landing sites within two counties in Kenya. This allowed scientists to evaluate the long-term impacts of two different fisheries management methods. While one county utilized a no-take MPA covering 30 per cent of the fishery, the other focused on gear restrictions and prohibited the use of small-mesh nets. The differences in outcomes for the fishers and the ecosystems were stark. Per-person daily catches rose 25 times faster near the no-take MPAs than in fished areas with gear restrictions, showing that no-take MPAs were far more effective at sustaining stocks of fish than restricting destructive gear.

A study, 'Protecting the global ocean for biodiversity, food and climate', published in the journal *Nature* on March 17, 2021,[22] found that increasing ocean protection can help through protecting biodiversity, boosting the yield of fisheries and securing marine carbon stocks. The results show that most coastal nations have areas that can contribute towards these objectives. However, a globally coordinated effort could be nearly twice as efficient as uncoordinated, national-level conservation planning (see *Figure 3*).

6. Does Target 3 have any relation with SDGs or any other global goals?

Out of the 17 Sustainable Development Goals (SDGs) that were adopted in 2015 with the hope to help meet the United Nations 2030 Agenda for Sustainable Development, two support the achievement of Target 3 directly. These are Goal 14, pertaining to life below water, and Goal 15, pertaining to life on land. Specifically, these are Targets 14.5 and 15.4.

Goal 14 promotes conservation and sustainable use the oceans, seas and marine resources for sustainable development. Under this, at least 10 per cent of coastal and marine areas should be conserved.

Goal 15 is to 'protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss'. While the targets are linked to protection of habitat, a specific number for the area that needs to be conserved has not been set down.

However, the Sustainable Development Report 2023 categorizes both Target 14 and 15 as 'major challenges' towards meeting the SDGs as progress in both is stagnant. The world has already failed to meet the target that should have been met by 2020.[23]

Target 3 also has correlation with Targets 6 and 11 of the Sustainable Development Goals: Target 6.6 hoped to protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes by 2020, while Target 11.4 hopes to strengthen efforts to protect and safeguard the world's cultural and natural heritage.

It is believed that area-based conservation through protected areas and OECMs would help achieve of Sustainable Development Goals such as poverty alleviation (SDG 1), food security (SDG 2), good health and well-being (SDG 3), water security (SDG 6), sustainable livelihoods and economic growth (SDG 8), life below water (SDG 14), and life on land (SDG 15). Protected areas can also contribute to climate change mitigation and adaptation (SDG 13) and for disaster risk reduction.[24]

These protected areas would also help achieving many of the other targets and goals of the Biodiversity Plan. The Convention on Biological Diversity (CBD) hopes that progress towards this target will directly support the attainment of Goal A and Targets 4, 9 and 11. Conversely, progress towards Targets 1, 2, 12, 14, 19, 20, 21, 22 and 23 will help to meet Target 3 (see *Figure 3*).

Figure 4: Direct benefits and co-benefits provided by PAs and OECMs and their contribution towards SDGs

Source: UNDP, SCBD and UNEP-WCMC, 2021. Creating a Nature-Positive Future: The contribution of protected areas and other effective area-based conservation measures. https://www.undp.org/publications/creating-nature-positive-future-contribution-protected-areas-and-other-effective-area-based-conservation-measures

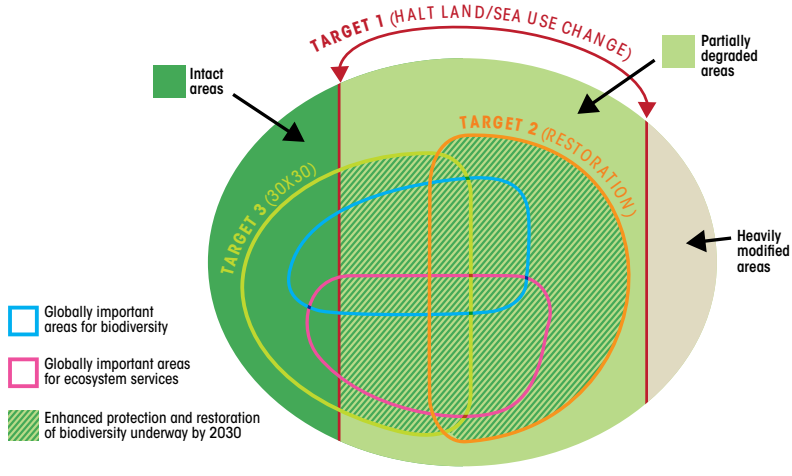
In an article published on July 23, 2024 in the *Journal of Applied* Ecology, researchers from the Zoological Society of London and York University said that forging a joint approach to meet climate change targets and biodiversity targets is vital for action and meeting the targets set under KMGBF and UNFCCC. They urged the world leaders to take advantage of this window of opportunity. Without this, they said, work on tackling either crisis could inadvertently harm progress on the other. According to the authors, 'The upcoming Conference of the Parties of the UNFCCC and CBD present a clear policy window for the two conventions to introduce a formal governance structure that brings together ideas, people, organizations and processes necessary for joining the dots on how to both stabilize our climate and recover our nature.'[25]

7. Is land available to expand protected areas?

An assessment suggests that around 26 per cent of the earth's surface is still relatively wild.[26] Under the latest Biodiversity Plan, hopes have been pinned on OECMs and indigenously owned land for meeting the target. According to the 2021 report *The State of Indigenous Peoples' and Local Communities' Lands and Territories*, as much as 32 per cent of land (43.5 million km^2) and associated inland waters are currently governed by Indigenous peoples and local communities (IPLCs). Part of this area—amounting to 3.6 per cent of the total land—is already under conventional protection.[27]

However, land is a scarce commodity and keeping it aside could compete with the requirements such as land to carry out climate change mitigation. Countries have pledged 120 million square kilometres for land-based carbon dioxide removal strategies employed by countries to achieve net-zero emissions. According to a study published in the journal *Frontiers in Climate*, one way to meet the targets would be to focus on emission reductions and implementing carbon dioxide removal options that provide the most co-benefits to climate mitigation and biodiversity protection efforts.[28] Land availability can be increased by restoring degraded land—around 10 million km^2 of degraded land (including around 20 per cent of existing cropland and 10 per cent of forestland) can be easily restored (see *Figure 5*).

Figure 5: Schematic of Targets 1, 2 and 3 of the Global Biodiversity Framework



Source: Dudley, N., and Stolton, S. 2022. Best Practice in Delivering the 30x30 Target. The Nature Conservancy and Equilibrium Research. https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_UKDEFRA_30x30_BestPractices_Report.pdf

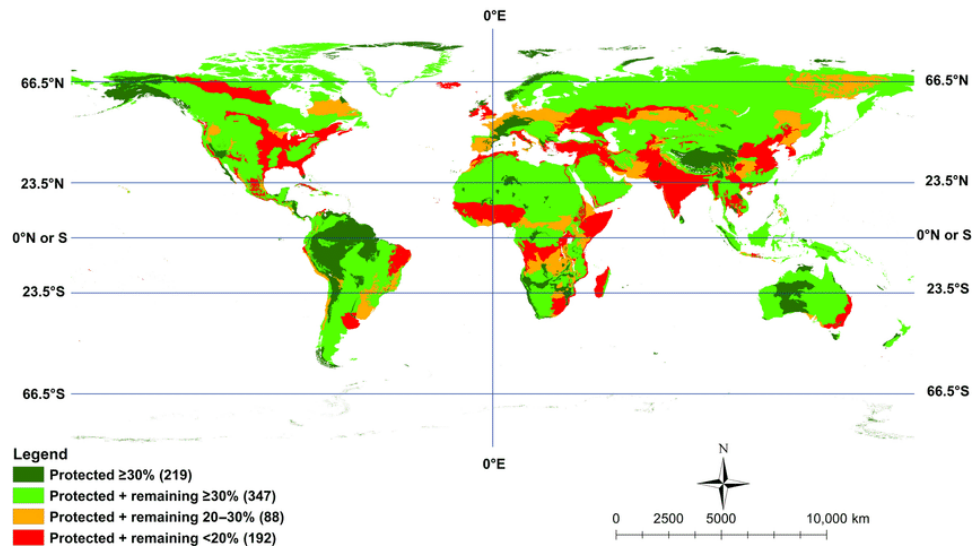
8. Which areas are available for protection?

Only about half of the earth's terrestrial surface is in a natural condition and capable of supporting functioning ecosystems. Areas rich in biodiversity need to be protected, and key biodiversity areas (KBAs) have been identified across the world. KBAs are places important both for species and their habitats, and include areas ranging from rainforests, reefs, mountains, marshes, deserts, grasslands and even deep oceans. Identification of a site as a KBA implies that the site should be managed in ways that ensure the persistence of the biodiversity elements for which it is important. As of June 2024, there are 16,551 KBAs around the world, covering a total area of 22,242,593 square kilometres.[29]

Many KBAs overlap wholly or partly with existing protected areas. Currently around 43.83 per cent of KBAs are part of PAs and OECMs.

As of now, many ecoregions already have protected more than 30 per cent area (dark green); others have adequate habitat remaining to easily achieve the 30 per cent target (light green); but many regions would require some (orange) or significant amounts of restoration to meet the target (red) (see *Map 3*).

Map 3: Depiction of 30 per cent protection by the 2030 milestone



Source: E. Dinerstein et al. 2019. A Global Deal for Nature: Guiding principles, milestones, and targets. *Science Advances*, Volume 5, Issue 4. www.science.org/doi/10.1126/sciadv.aaw2869

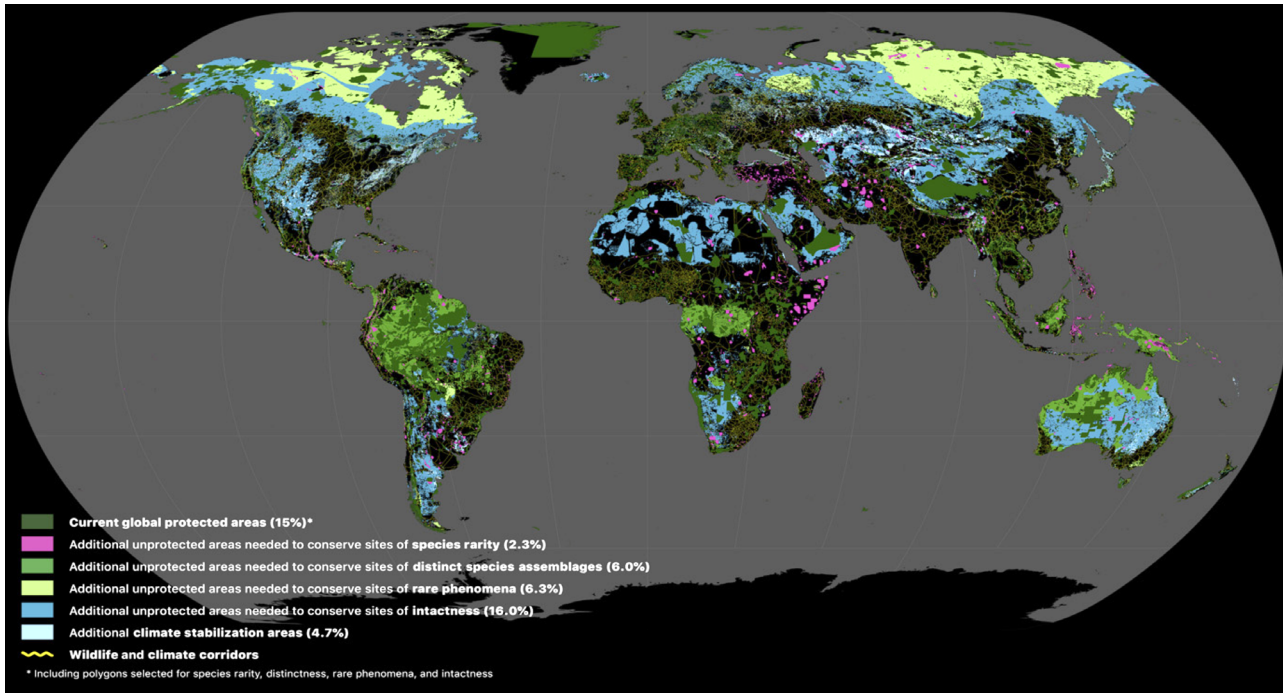
Over the last few years, researchers have tried hard to identify the areas that can be protected. For example, the E.O. Wilson Biodiversity Foundation's Half-Earth Project has mapped the geospatial locations of all of earth's species to identify places that offer the most effective path forward for the protection of endangered species and endangered ecosystems. These locations have been named Places for a Half-Earth Future, and are places with extraordinary species richness and rarity that are currently unprotected.

Eric Dinerstein, Director of Biodiversity and Wildlife Solutions at US-based NGO RESOLVE, and his team have studied where new areas can be protected. The first study, 'A global deal for nature: Guiding principles, milestones, and targets' published in *Science Advances* in 2019, highlighted groups of high-priority natural sites and species that should be targeted within ecoregions.[30] By 2030, Dinerstein and his team hope that targets such as protecting all 600 sites that are home to endangered species as identified by Alliance for Zero Extinction; 90 per cent of Key Biodiversity Areas (KBAs); and 80 per cent of extant primary habitats from 2018 baseline, and doubling of at least 10 key populations of the world's megafauna will be achieved. To achieve this, the paper suggests that the most important sites are protected between now and 2030 as part of the 30 per cent protected target. These sites should include not only large, intact areas, but also small habitat patches that are essential for the survival of species.

The group published a second paper in September 2020 entitled 'A global safety net to reverse biodiversity loss and stabilize earth's climate' in the journal *Science Advances*.[31] The paper provided maps of ecoregions that if conserved would reverse further biodiversity loss, prevent CO_2 emissions from land conversion, and enhance natural carbon removal (see *Map 4)*. This framework shows that beyond the 15.1 per cent land area currently protected, 35.3 per cent of land area is needed to conserve additional sites of particular importance for biodiversity and stabilize the climate. This adds up to 50.4 per cent of the earth's land. The researchers said that as Indigenous people's lands account for 37 per cent of all remaining natural lands on earth, it would be easy to reach the target if these groups willingly 'self-nominate' themselves as OECMs.

In the group's latest study, published on June 25, 2024 in the journal *Frontiers in Science*, 16,825 unprotected sites spanning ~164 million hectares (Mha) of the terrestrial realm were identified.[32] These areas harbour rare and threatened species and have been named Conservation Imperatives. Further, 38 per cent of the 16,825

Map 4: Areas of the terrestrial realm where increased conservation action is needed to protect biodiversity and store carbon



Fifty ecoregions and 20 countries contribute disproportionately to proposed targets and Indigenous lands overlap extensively with the Global Safety Net.

Sources: Eric Dinerstein et al. 2020. 'A "Global Safety Net" to reverse biodiversity loss and stabilize Earth's climate' in Science Advances, Volume 6, Issue 36. https://www.science.org/doi/10.1126/sciadv.abb2824; https://www.globaldealfornature.org/science/

sites are either adjacent to or are within 2.5 km of an existing protected area. The researchers say that this would reduce land acquisition and management costs and suggest that these sites be prioritized for conservation action over the next five years. As the Conservation Imperatives are highly concentrated, protecting these requires only ~164 Mha globally to avoid extinctions—a mere 1.22 per cent of the earth's entire terrestrial surface and 0.74 per cent of land in the tropics. The authors say that the strategy is affordable and is likely to cost US $169 billion, or US $34 billion per year over five years. The expansion of global protected areas in 2018–23 incorporated only 7 per cent of such sites.

The take-home message here is that Indigenous lands now need to be protected as these are the most biodiverse land available. How this would be done is crucial.

9. How much money is available to meet the target?

Target 19 of the Kunming-Montreal Global Biodiversity Framework (KMGBF) deals with funding for meeting the goals and targets. Under this, parties have to mobilize US $200 billion per year from all sources, including US $30 billion through international finance. At a meeting in the run-up to COP15, it was estimated that the world would need US $103–178 billion annually to increase the coverage of protected areas from current levels to 30 per cent by 2030.[33] This would be an increase of 4.7–7.3 times from the current estimates of expenditures. This is likely to use up a major chunk of the US $200 billion, leaving little for the other important targets.

The Global Environment Facility (GEF) is a major multilateral source of funds for protection of biodiversity and is tasked with ensuring that sufficient money is available to developing countries for this purpose. GEF has a cumulative budget of US $5.25 billion for 2022–26, of which 36 per cent is earmarked for biodiversity. The remaining budget is for projects on climate change, pollution, land and ocean health.

So far, according to the GEF project database accessed on August 23, 2024, 2024, the organization has provided funds for 6,206 projects.[34] A search for the phrase 'protected area' yields 511 projects (see *Table 3*). GEF's contribution to

Table 3: Projects on protected areas funded by GEF in each of its replenishment cycle

GEF period	Projects on protected areas
Pilot phase	18
GEF 1	26
GEF 2	63
GEF 3	87
GEF 4	111
GEF 5	86
GEF 6	49
GEF 7	48
GEF 8	23

protected areas is a little more than US $2,425 million (2,425,185,374) of the total allocations of US $25,227 million by the organization. Since its inception, GEF has supported the improved management of more than 2,500 million hectares of terrestrial and marine protected areas around the world, an area larger than Latin America.[35]

Since the adoption of the KMGBF, a special fund has been set up to fund work towards achieving the goals and targets. The Global Biodiversity Framework Fund (GBFF) was launched at GEF's Seventh Assembly in Canada. So far, project preparation grants amounting to nearly $40 million have been provided to support 21 projects. Target 3 is among the many that will benefit and the fund supports more than 8 million hectares of terrestrial and marine protected areas.[36]

At the 67th meeting of the Global Environment Facility concluded on June 20, 2024, a total of US $736.4 million in funding was approved for projects.[37] The GBFF Council approved the new fund's very first work programme, allocating $37.8 million for protected area management in Brazil and Mexico. The three GBFF-funded projects will improve the sustainability of more than 30 million hectares of protected areas on land and at sea, with long-term financing and support for Indigenous-led conservation (s*ee Table 4*)**.**

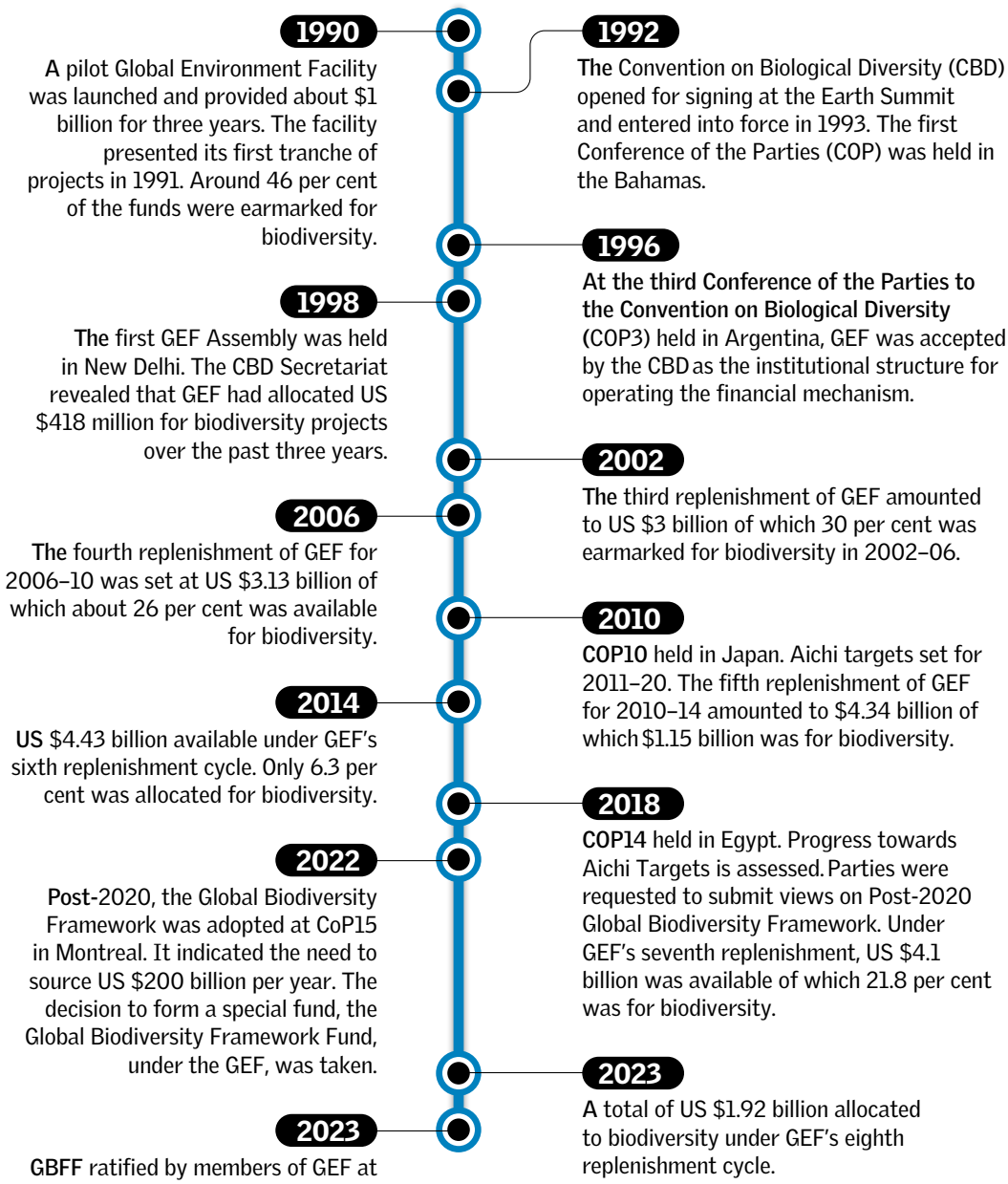
There are projects that have received funds from the GEF Trust Fund too that will help the world meet the 30x30 target of the Biodiversity Plan. These include, for example, a project in Argentina, to which US $6.3 million have been made available for reducing ecosystem degradation and biodiversity loss in seven protected areas and their buffer zones. In Central Asia, a project seeking to strengthen protected area management and combat biodiversity loss in the Caspian Sea has been approved and US $11.7 million has been made available for this. Namibia's Protected Area Network would be protected by creating enabling conditions for long-term financial sustainability, including with the operationalization of the Game Product Trust Fund, and US $37.8 million have been made available for this.

In the initial years of its establishment, GEF used protected areas merely as a proxy indicator for effectiveness of investments on broader subjects such as investments on management interventions within protected areas and their buffer zones. GEF began talking about protected areas for biodiversity conservation in its third replenishment.[38] Since then, GEF provides funds for various aspects of PA establishment and functioning.

Table 4: Project preparation grants approved specifically for protected areas in the first and second round

Project title	Agency	Country	Funding request (including PPGs)
Reimagining National Parks for People and Nature—Leveraging Durable Financing Mechanisms for Mega Living Landscapes (MLL) to achieve Target 3 in South Africa	WWF-US	South Africa	$5,000,000
Strengthening Globally Significant Biodiversity Corridors in the Philippines through Local Community Empowerment	ADB	Philippines	$3,000,000
Community-based conservation for biodiversity and livelihoods in the context of climate change in DRC	FAO	Congo DR	$6,560,000
Delivering Target 3 at the regional scale in Peru: Applying the ecosystem approach in the Northern Transversal Economic Corridor of Peru (Northern TEC)	WWF-US	Peru	$12,570,000
Responding to Pacific priorities for ecosystem management and NBSAP implementation through strengthening capacities for effective planning and monitoring of ecosystems	UNDP	Fiji, Nauru, Tonga, Regional	$4,630,000
Strengthening transboundary conserved area management of the Sangha Tri-National (TNS)	WWF-US	Cameroon, Central African Republic, Congo, Regional	$7,259,526
Empowering Indigenous Peoples for Sustainable Development: Inclusive Biodiversity Management through a Social and Solidarity Economy Approach	UNDP	Suriname	$1,160,000
Restoring Forest Ecosystem Functions Through Community-Based Management in the Royal Botanic Garden of Jordan	UNDP	Jordan	$870,000
Effective protection of Mozambique's Miombo woodlands and marine hotspot conservation areas enhancing global coping mechanisms to climate change	CI	Mozambique	$4,876,006
Sustainable Management and Restoration of Threatened Ecological Corridors in Kenya	World Bank	Kenya	$3,896,750
Enhancing co-benefits of conservation/protected area management through an inclusive wildlife-based ecotourism strategy (ECOTOURISM)	UNDP	Indonesia	$7,000,000
Strengthening the protected area system in Angola through innovation and capacity development	UNDP	Angola	$3,260,000
Support for the development of protected areas for the conservation of biodiversity	UNDP	Senegal	$1,749,625
Biodiversity Conservation in Indigenous Lands	Funbio	Brazil	$9,880,000
Caatinga Protected Areas Program—ARCA	WWF-US	Brazil	$9,880,000
Addressing Outstanding Barriers and Leveraging Durable Financial Mechanism to Achieve Target 3 in Gabon	WWF-US	Gabon	$1,518,910
Mex 30x30: Conserving Mexican Biodiversity through Communities and Their Protected Areas	CI	Mexico	$18,500,000
		TOTAL	$39,778,910

Timeline—The working of GEF with regard to CBD

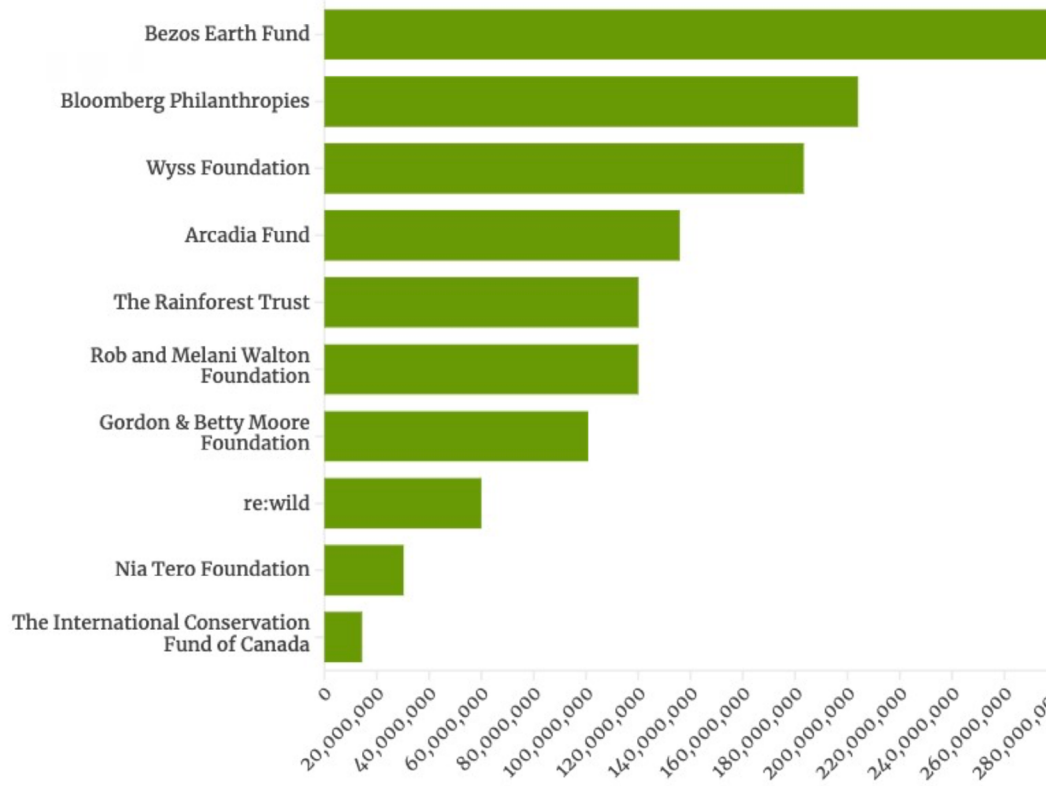


Source: GEF, CBD

10. What are philanthropies doing about 30x30?

In September 2021, multiple philanthropies pledged a total of US $5 billion to ensure that 30 per cent of the planet is protected and preserved in the most important places for biodiversity by 2030.[39] The Protecting Our Planet Challenge will invest at least US $5 billion to support the creation, expansion and management of marine protected areas and Indigenous and locally governed marine and coastal areas by 2030. These organizations include Arcadia (a charitable fund of philanthropists Lisbet Rausing and Peter Baldwin); Bezos Earth Fund; Bloomberg Philanthropies; Gordon and Betty Moore Foundation; Nia Tero; Rainforest Trust; Re:wild; Wyss Foundation; Rob and Melani Walton Foundation; Bobolink Foundation, and the International Conservation Fund of Canada (see *Figure 6*).

Figure 6: Spending on the Protecting Our Planet Challenge



Source: Daniel Pye 2023. https://news.mongabay.com/2023/04/bankrolling-biodiversity-how-are-private-philanthropists-investing-in-nature/; Accessed on August 21, 2024.

In June 2022, these organizations committed US $1 billion to protect 30 per cent of the oceans by 2030. This single commitment was roughly equal to all philanthropic contributions for marine protected areas and habitat protection over the past decade.[40]

The investments are likely to be much more as Bezos Earth Fund alone has pledged that it will distribute US $10 billion to fight climate change and biodiversity loss by 2030.[41] The Bezos Earth Fund has already granted US $2 billion under its seven programmes and more that 230 projects. Under its programme to conserve and restore nature, 41 projects have been granted US $590.8 million.

The organization plans to spend US $1 billion to create and manage protected areas. It has already backed a 600,000-square-kilometre network of nine marine protected areas (MPAs) across Ecuador, Colombia, Panama and Costa Rica in the Eastern Tropical Pacific.[42] The fund has also committed US $100 million to support the Unlocking Blue Pacific Prosperity initiative, the largest conservation effort ever. Led by Pacific Island nations, this initiative will establish sustainable management across the entire Blue Pacific Continent, a marine area five times the size of the United States.

Bezos Earth Fund partnered with governments, Indigenous peoples and local communities to establish 3.5 million hectares of new conservation areas and strengthen the management of more than 12 million hectares of protected areas and Indigenous lands in Bolivia, Colombia, Ecuador and Peru. The fund also supports work to protect the Congo Basin, a region that sequesters vast amounts of planet-heating carbon, is rich in biodiversity and home to 75 million people.

The Bezos Earth Fund has supported Indonesia's plans to protect 15 million hectares forests in which they have assigned a role to indigenous communities who will take care of 3.5 million hectares of the rainforest. The 15 million hectares increases the area under protection by ten times. Involving the community is a departure from the current situation where indigenous communities have borne the brunt of establishment of palm oil plantations on their land. Under the project, the government also plans to establish new national parks in key biodiversity areas, covering at least 2.5 million hectares.

Other than the Bezos Earth Fund, Arcadia has committed over US $469 million towards conserving and restoring nature, which includes significant funding for protected areas.[43] They have partnered with Oceans 5, contributing US $6 million

to support the establishment of marine protected areas, halt overfishing, and limit offshore oil and gas development. This partnership has already seen impactful results, such as the creation of new marine protected areas in Papua New Guinea that covers more than 16,000 square kilometres. Additionally, Arcadia supports other conservation efforts that align with the 30x30 target, including large-scale restoration projects through the Endangered Landscapes & Seascapes Programme and the Marine Protection Fund, which directly supports projects aimed at protecting marine and coastal areas. One of their major initiatives involves a US $51 million joint project with Bloomberg Philanthropies, announced in 2023, aimed at expanding and improving marine protected areas to help reach the global 30x30 ocean protection target.[44] This fund supports various stakeholders, including Indigenous Peoples, local communities, NGOs, and governments to strengthen marine biodiversity and resilience.

Similarly, the Wyss Foundation's Wyss Campaign for Nature is a $1.5 billion campaign to help protect 30 per cent of the planet by 2030 by creating and expanding protected areas, implementing international conservation targets, and inspiring conservation action around the world.[45]

However, private investment in biodiversity has not gelled with activists who say that the billionaires are influencing decisions and lack sound knowledge about the environment.

11. Are the updated NBSAPs talking about protected areas?

The Parties to the UN's Convention on Biological Diversity (CBD) are required to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity. These are called the National Biodiversity Strategies and Action Plans (NBSAPs). As the Biodiversity Plan has set new targets and goals, member countries are supposed to update and submit the NBSAPs ahead of COP16. So far, as of September 23, 2024, 21 countries have resubmitted this document.

NBSAPs are blueprints that would help countries plan and ensure that they meet the goals and targets outlined in the GBF. NBSAPs are similar to nationally determined contributions (NDCs), plans that outline how individual countries envisage meeting the goals of the Paris Agreement, but countries are not legally obliged to submit the NBSAPs (countries are legally obliged to submit NCDs). Each NBSAP is unique as every country has its own unique blend of species and habitats—and its own challenges when it comes to conserving them. India is in the process of updating the NBSAP. In India, as per a notice issued by the National Biodiversity Authority on August 29, 2023, a working group was formed to develop this document and six months was given for this work.

Since COP15, the following 21 countries have resubmitted their NBSAPs:[46]

Malta, September 23, 2024
The country plans to protect 30 per cent of land and 30 per cent of the Fisheries Management Zone (FMZ) and ensure that it is part of the comprehensive and ecologically representative National Ecological Network. Management of Natura 2000 sites is would be strengthened. A plan for implementation would be prepared by 2025. Also, there is a plan that by 2030, 50 per cent of the invasive alien species in protected areas would be managed.

Mexico, August 22, 2024
Mexico's National Biodiversity Strategy has 170 actions and 76 per cent of these are linked to the 30x30 target.

Republic of Korea, August 2, 2024
South Korea plans to meet Target 3 by increasing protected areas and OECMs. Marine and coastal areas would also be protected. The country is in the process of laying the framework and revising legislation. Ecotourism and PES schemes would be promoted. The government would work with local communities and offer support to private landowners.

Burkina Faso, August 15, 2024
According to the National Strategy for Biological Diversity 2025–29, the ambition is to contribute to increasing the forest cover rate from 22.72 per cent in 2020 to 26.47 per cent in 2029. The total cost of implementing the strategy is estimated at Central African CFA franc (FCFA) 340.49 billion.

Jordon, August 11, 2024
By 2050, Jordan plans to reverse current trends in biodiversity, ecosystem, and associated ecosystem function loss; recognize the existential threat to society caused by biodiversity loss and ecosystem degradation and the urgent need to act now; ensure biodiversity is the cornerstone of green growth and underpins the provision of life-supporting ecosystem goods and services; establish the country as a centre of excellence for knowledge and expertise, building resilience and guide us through future challenges of a changing climate. Protected areas have been identified as one of the key drivers of change.

Cuba , July 31, 2024
Cuba plans that at least 13 per cent of the national territory and other areas under its jurisdiction are conserved and managed through the National System of Protected Areas and other effective conservation measures by 2030.

Malaysia, July 31, 2024
The plan is to protect at least 20 per cent of terrestrial areas and inland waters, and 10 per cent of coastal and marine areas through protected areas and OECMs. The country would also put in place the National Framework for Protected Area and identify priority sites gazetted by 2030.

Afghanistan, July 28, 2024
The National Biodiversity Strategy and Action Plan (NBSAP) has 17 targets and 43 associated actions aligned with KMGBF. Afghanistan has placed emphasis on the means of monitoring necessary to determine the extent

to which the Targets and Actions have been successfully implemented. The estimate for fully implementing the NBSAP by 2030 is US $80–110 million. Recognizing that biodiversity conservation, poverty alleviation and sustainable use are all interdependent, the NBSAP also proposes three development portfolios linking the NBSAP targets to the broader development agenda.

Suriname, July 16, 2024
Suriname currently has 13.09 per cent of its land under protection. According to the updated National Biodiversity Action Plan 2024–30, terrestrial, marine and wetland protected areas would be increased to 30 per cent of the total area that is effectively managed.

Italy, July 9, 2024
Italy's implementation programme for 2023–30 includes two strategic objectives: to build a coherent network of protected and, to restore marine and terrestrial ecosystems. The country will legally protect at least 30 per cent of the earth's surface and 30 per cent of the sea's surface. It will also ensure that at least one-third of legally protected land and marine areas, including all primary and old-growth forests, are rigorously protected. Adequate finances would also be provided. The country hopes that at least 30 per cent of the species and habitats protected under the Birds and Habitats Directives, show a positive trend by 2030.

Canada, June 21, 2024
Canada's focus is on marine protected areas and the country has moved from less than 1 per cent of conserved ocean area in 2015 to 14.7 per cent in 2023. Land in Canada is primarily managed by provincial, territorial and municipal governments, as well as Indigenous governments and private landowners and the central government is collaborating with them to increase protected areas. By 2030, 10 new National Parks, 10 National Marine Conservation Areas, and four freshwater National Marine Conservation Areas, and 15 National Urban Parks are planned in collaboration with the stakeholders.

Austria, May 3, 2024
At least 30 per cent of the country's surface area is already protected as wilderness areas, national parks, European protected areas, nature reserves, landscape conservation areas and legally protected habitats. The plan is to strictly protect 10 per cent of the 30 per cent protected area as

per the nature conservation law and to create a network of protected areas through habitat corridors.

Ireland, February 8, 2024
By 2024, Ireland identified preliminary areas that will be pledged as future protected areas under the EU Biodiversity Strategy. Ireland's NBSAP speaks about restoring commercial fish stocks in Irish waters to sustainable levels and repairing the nation's highly degraded peatlands.

China, January 25, 2024
By 2030, at least 30 per cent of terrestrial, inland water, coastal and marine areas will be effectively protected and managed. The area of nature reserves will account for about 18 per cent of the land area, the conservation rate of the number of species of terrestrial wildlife and terrestrial wild plants under key state protection will both reach about 80 per cent, and the quality and stability of marine ecosystems will be significantly improved.

France, December 11, 2023
The national biodiversity strategy will continue efforts to effectively protect at least 30 per cent of the national territory, land and sea, in which 10 per cent is in strong protection.

EU, November 14, 2023
The EU will legally protect a minimum of 30 per cent of the EU's land area and 30 per cent of the EU's sea area and integrate ecological corridors, as part of a true Trans-European Nature Network. It will strictly protect at least a third of its protected areas, including all remaining EU primary and old-growth forests. It will effectively manage all protected areas, defining clear conservation objectives and measures, and monitor them appropriately.

Luxembourg, November 7, 2023
Luxembourg will legally protect 30 per cent of the country's territory as protected areas, contributing to a truly coherent and resilient Trans-European Nature Network.

Hungary, August 28, 2023
The national strategy has an objective to establish a coherent network of protected areas, improving the condition of protected and Natura 2000 areas—a network of protected areas in Europe that are home to some of the most threatened and valuable species and habitats—and ensuring appropriate nature conservation management.

Japan, July 11, 2023
Japan will conserve at least 30 per cent of terrestrial and inland waters, and marine and coastal areas through OECM, and improve the effectiveness of the management of those areas. The NBSAP talks about ensuring 'appropriate distance between human beings and wildlife is maintained', likely referring to its booming nature-tourism industry. The Sixth National Biodiversity Strategy (2023–30) for the conservation and sustainable use of biodiversity is based on the national Basic Act on Biological Diversity.

Spain, January 30, 2023
In line with the EU Biodiversity Strategy to 2030, it will be ensured that at least 30 per cent of the species and habitats that currently do not have a favourable status are brought to that status or show a strong positive trend.

12. What new regulations have countries come up with on 30x30 since the Kunming-Montreal Global Diversity Framework?

Other than preparing the National Biodiversity Strategy and Action Plans (NBSAPs), countries are also trying to strengthen domestic legislation. The latest among them is the European Union's new restoration law,[47] put in place in June 2024 and came in force on August 15, 2024. This piece of legislation aims to restore degraded ecosystems and promote biodiversity conservation. The law sets binding targets for the Member States to restore degraded habitats, such as forests, wetlands and grasslands, in order to enhance ecosystem resilience and mitigate the impacts of climate change. The regulation combines an overarching restoration objective for the long-term recovery of nature in the EU's land and sea areas with binding restoration targets for specific habitats and species. These measures should cover at least 20 per cent of the EU's land and sea areas by 2030, and ultimately all ecosystems in need of restoration by 2050.

In June 2024, Canada too put in place a Nature Accountability Bill (Bill C-73)—tabled along with Canada's 2030 Nature Strategy—which charts a path for how Canada will implement the Kunming-Montreal Global Biodiversity Framework (KMGBF) domestically. The strategy required under the new law will be an update to the 2030 strategy the government tabled earlier, which includes 23 targets covering ecosystem restoration and conserving and protecting 30 per cent of Canada's land and marine areas. However the strategy fails to include a funding component. According to the Canadian environment minister, the government has committed US $600 million in new parks and conservation money in the April budget, on top of the US $1.5 billion that was announced during COP15.[48]

The Supreme Court in Brazil is currently debating the constitutional validity of the controversial Marco Temporal, or time limit framework, which limits substantially the ability of Indigenous peoples across the country to make claims

for lands.[49] Under this, Indigenous peoples are only entitled to make claims for lands if they can prove that they were in possession of them on or before October 5, 1988 when the Brazilian constitution came into effect. In wake of the commitment towards the 30x30 target, an effort has to be made to return rights to land to indigenous peoples and reduce the structural barriers that prevent rural communities from claiming them. For example, indigenous people in Brazil are eligible to receive support from social welfare programmes, but these communities face difficulties in accessing support due to reasons such as high cost of travel from remote areas to urban centres to collect payments.

In March 2024, Japan adopted its Sixth National Biodiversity Strategy (2023-2030) for the conservation and sustainable use of biodiversity based on the national Basic Act on Biological Diversity. The Biodiversity Strategy was built around the 23 GBF Targets. The government revised the strategy for the first time in 11 years in response to COP15. The new strategy lays out 25 action targets to stop the loss of biodiversity, which include conserving more than 30 per cent of Japan's land and waters and halving invasive alien species such as raccoons and mongooses.

Australia is also in the process to amend its Environment Protection and Biodiversity Conservation (EPBC) Act to strengthen biodiversity conservation and align it with the KMGBF. The new laws are intended to replace the 25-year-old Environment Protection and Biodiversity Conservation (EPBC) Act. Australia's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is reviewed every 10 years. In the 2020 review, 38 recommendations were made to amend the act. In response, the Nature Positive Plan (NPP) was introduced in December 2022; this has a package of four bills that are likely to reach the Senate until late 2024.[50]

South Africa is also in the process of updating the National Biodiversity Economy Strategy so that it is aligned with the Convention on Biological Diversity's KMGBF. The policy supports monetizing and exploiting biodiversity such as using wildlife for fair-chase trophy hunting, meat hunting and wild meat sales. It also lists fishing and harvesting indigenous plants (for example, for medicine and tea) and insects (for food). The strategy addresses gaps in South Africa's conservation model, such as the fact that it still largely excludes previously disadvantaged groups of people. It also aligns ambitious global goals for expanding protected areas with the country's pressing development needs.

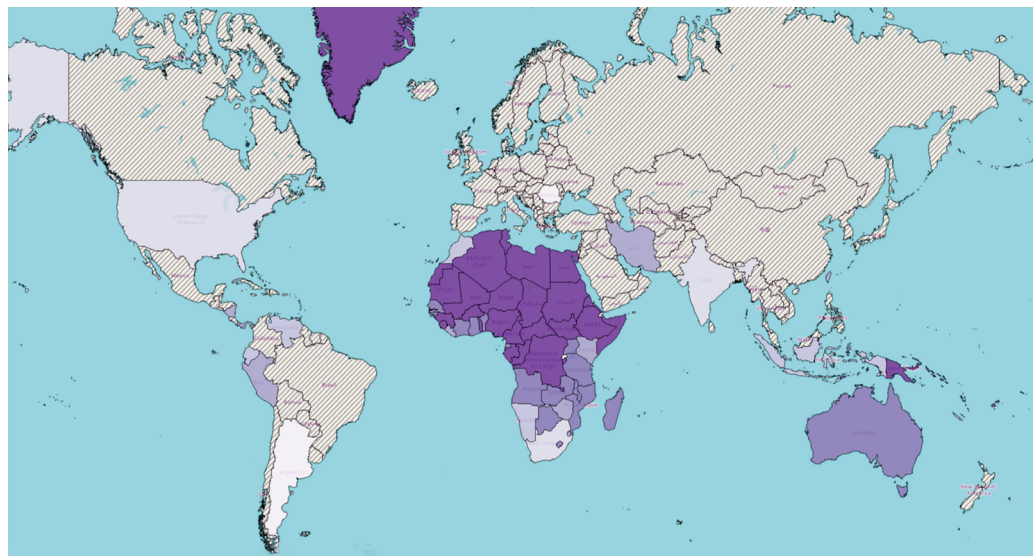
The expansion is likely to be through inclusion of OECMs. There are already examples where landholders derive economic benefits from sustainable use of wildlife on their land. This is commonly done through ecotourism, recreational hunting and sale of live game and game meat. This model helps landholders to opt for wildlife-based enterprises instead of other land uses like agriculture. The outcome is biodiversity conservation beyond protected areas where wild herbivore numbers have increased tenfold since the 1960s.[51]

13. How have Indigenous peoples and local communities been included in the quest for land under protection?

As of now, most of the protected areas are under the control of governments. As more than a third of land is managed, occupied, owned or used by Indigenous peoples, the decision to recognize their role, contribution and rights in conservation, restoration and sustainable use of biodiversity is a positive step. Indigenous peoples and local communities (IPLCs) are mentioned in one of the four goals (Goal C) and eight of the Framework's 23 targets (Targets 1, 3, 5, 9, 13, 19, 21 and 22). However, action on the ground is not likely to be easy. There are about 1.8 billion Indigenous peoples, Afro-descendant peoples, and local community members that live in and steward the earth's most critical ecosystems.

However, all is not legally under the control of the communities. Indigenous peoples and local communities currently own less than 15 per cent of all

Map 5: Community land resources



Note: The darker the shade, the higher the percentage of country area that is the land of communities (including Indigenous peoples). The darkest shade is where these lands are estimated to constitute 80 percent or more of the country area. Community/Indigenous people's lands may or may not be recognized as owned in national laws.

Source: Liz Alden Wily, 2018. 'Collective Land Ownership in the 21st Century: Overview of Global Trends' in *Land*, Volume 7, Issue 2. https://www.mdpi.com/2073-445X/7/2/68

forestlands globally. According to an estimate by CLARIFI, a global initiative with a priority to support projects in low- and lower middle-income countries, the world needs to add 400 million hectares to legally recognized territories of Indigenous peoples, Afro-descendant peoples and local communities to meet the 30x30 target. Also, their legal land ownership in tropical forests should be at least 50 per cent[52] (see *Figure 7*).

Figure 7: The governance types of protected areas regionally and globally

Source: UNDP, SCBD and UNEP-WCMC, 2021. Creating a Nature Positive Future: The contribution of protected areas and other effective area-based conservation measures. https://www.undp.org/publications/creating-nature-positive-future-contribution-protected-areas-and-other-effective-area-based-conservation-measures

While there are very few examples of indigenous communities being entrusted with the conservation work, there are many instances of 'fortress conservation'. In Africa and Asia, nearly every protected area was established against the will of local communities, resulting in their dispossession and forced resettlement. According to a 2006 article, 'Eviction for conservation: A global overview', forced evictions for the establishment of Royal Chitwan National Park is a good example of the impact on the community. Between 1994 and 1999, Tharu people were moved from one part of the park to another. Researchers who worked with the community before they were moved got an opportunity to examine the consequences. They found that though the people were optimistic and expected that the move would bring improvements, these hopes were dashed as they were resettled on poor soils, three hours away from water and without access to forest resources.[53]

Between the 1930s and the 1990s, the Batwa people in Uganda were, without prior consent, evicted by government authorities from their ancestral lands in Kabale, Kanungu and Kisoro districts to free land for wildlife and forest conservation. These areas have now been turned into the Bwindi Impenetrable National Park, Mgahinga Gorilla National Park, and Echuya Central Forest Reserve. These areas became wildlife parks for the protection of rare mountain gorillas. The government charges up to US $700 (£530) for gorilla tracking. Conservation efforts have seen Uganda's mountain gorilla population rise to 459 and they are no longer listed as critically endangered. However, in the process the community lost their homes. In 2013, a group of Batwa took the Ugandan government to court over the evictions and the court directed the government to compensate the people.[54] The order came in 2021, and since then there has been no further news on this. Last heard was that the government plans to appeal.[55]

While efforts are underway to increase the area under protection, there are umpteen instances where Indigenous Peoples and Local Communities (IPLCs) who reside in these areas have been evicted out even after COP15, where it was categorically stated that IPLCs would be involved in the process of conservation. In March 2024, the Tanzanian government issued a new round of eviction notices impacting the Maasai communities. The first notice was issued in Simanjiro district for the expansion of Tarangire National Park while the second was issued to eight villages for the expansion of the Kilimanjaro International Airport. With about 70 sacred sites impacted since 2009, Maasai elders and spiritual leaders say they fear and disapprove of the Tanzanian government's decision of eviction that has disrupted their spiritual connection with their ancestral lands. So far, more than 20,000 Maasai have been evicted from their lands, with some resisting and claiming compensation is dissatisfactory.[56]

In 2023, there were reports of hundreds of members of the Ogiek community being evicted from the Mau Forest in Kenya. Community members say that as Mau is Kenya's biggest forest, the interest shown by offsetting companies is prompting the Kenyan government to assert its control.[57] In a statement, Kenya's Ministry of Environment, Climate Change and Forestry said it was 'fully aware' of the operation to reclaim parts of the Mau Forest from 'encroachment and illegal logging activities'. It urged the 'multi-agency security teams' to 'carry out the operation humanely'. In 2017, the Ogiek won a landmark case against government plans to evict them from their ancestral land in the Mau Forest. The African Court of Human and People's Rights ruled they were entitled to live on the land, and the government had violated their rights by trying to evict them.

In India, 2023 also saw resistance by Indigenous people from Protected Areas across the country against the Nagarhole Tiger Reserve, created in 1999 on the ancestral land of the Jenu Kuruba, who are renowned for their prowess as honey collectors, as well as the Beta Kuruba, Yarava and Pania tribes. The resistance in Nagarhole is continuing in the form of an indefinite protest involving Adivasis from 46 villages now being held in front of the Forest Department Offices of the Tiger Reserve. It will continue until the demands of the communities are met.[58]

In Tanzania, the government is forcing Maasai communities out from areas in northern part of the country. This has been going on since June 2022 (before the adoption of KMGBF). The community that has inhabited the area for centuries is being abused in the process. The reason for eviction is that the government wants to demarcate 1,500 square kilometres of village land as a game reserve. This would exclude the pastoralist Maasai residents of Loliondo division, Ngorongoro district, from living on the land, using it for grazing, or even entering the area to seek water for household and agricultural use. Communities in Ngorongoro say government is shutting down vital services to remove them from ancestral lands to expand lucrative game reserves. This is not the first time—in 2017, government security forces burned 185 Maasai houses along the park border (Ngorongoro conservation area) in Loliond. There were similar attempts in 2003 and 2007 also. Ngorongoro, a type of protected area, was created in 1959 and grants Maasai communities and their cattle permanent residence within. Around 70,000 community members depend on this area. It is not that the global authorities are not aware of this. Just recently, in June 2024, the EU Commission cut the country's funding towards wildlife conservation—they were funding as much as US $19.76 million jointly to Tanzania and Kenya.[59] Earlier, in April 2024, the

World Bank stopped its funding for conservation and the tourism mega project in southern Tanzania for which they were providing US $150 million. UNESCO has been accused of supporting human rights abuses in African parks.[60]

With the decision on inclusion of IPLCs in the conservation process at COP15, the situation could improve. For example, Indonesia recently announced plans to protect as much as 15 million hectares of rainforest. Around 3.5 million hectares of this rainforest will be assigned to indigenous communities. Involving the community is a departure of current situation where indigenous communities have borne the brunt of establishment of palm oil plantations on their land. The latest move supports the Government of Indonesia's Forestry and Other Land Use (FOLU) Net Sink 2030 agenda, put in place in 2022. Under FOLU, the country hopes to manage the forest in such a way that it no longer contributes to the release of greenhouse gas emissions and instead turns into a carbon sink. The work is supported by the Bezos Earth Fund and would help the country meet commitments under both the Paris Agreement and the new Global Biodiversity Framework. Care still needs to be taken as a recent Greenpeace Indonesia report suggests that instead of absorbing emissions, the strategy could instead lead to deforestation and the destruction of natural forests as it promotes industrial plantations.[61] This can exacerbate conflicts with Indigenous and local communities, the report suggests. There are also reports that deforestation for oil palm plantations has increased during 2022–23 in Indonesia after a near-decade-long decline in forest loss, according to an analysis.[62]

14. What do organizations that represent communities say about 30x30?

Though the 30x30 target has been adopted, the support to this is not unanimous. Organizations such as the International Indigenous Forum on Biodiversity (IIFB) supports the target, provided it respects Indigenous peoples' and local communities' (IPLCs) human rights. They also emphasize the need for equitable governance and inclusive approaches that ensure the rights of IPLCs to their lands and resources.

The Forest Peoples Programme has a cautious stance towards the 30x30 target. They welcome the removal of 'strictly protected' areas from the text due to their association with human rights abuses. The organization calls for a focus on equitable governance rather than on merely expanding protected areas. They stress on the importance of securing IPLCs' rights to land, territories and resources. The Asia Indigenous Peoples Pact (AIPP) supports the 30x30 target conditionally, advocating for the inclusion of Indigenous rights in the conservation framework. They emphasize the need for meaningful participation of IPLCs in decision-making processes and the equitable distribution of conservation benefits. The Indigenous Environmental Network (IEN) emphasizes the need for Indigenous-led conservation and is critical of top-down approaches—such as the 30x30 target—that do not involve proper consultation with Indigenous peoples. The International Work Group for Indigenous Affairs (IWGIA) caution that the 30x30 target might be implemented in ways that undermine Indigenous rights and advocate for Indigenous-led conservation strategies. The Global Forest Coalition highlights the need for equitable governance in achieving the 30x30 target. They caution that the current mechanisms for funding and implementing conservation efforts are often dominated by private-sector interests, which can undermine the goals of climate and biodiversity initiatives.

On the other end of the spectrum are organizations such as the Rainforest Foundation UK and the Survival International, which do not support the 30x30 target as it could lead to human rights abuses if not implemented with strong safeguards for IPLCs. It can lead to the displacement of Indigenous communities from their lands under the guise of conservation. They believe this target can

exacerbate human rights abuses and cultural erasure. They argue that conservation should not come at the expense of Indigenous rights and stress the importance of community-led conservation efforts. The Phillipines-based non-governmental organization Tebtebba Foundation (Indigenous Peoples' International Centre for Policy Research and Education) is concerned that the 30x30 target could lead to the appropriation of Indigenous lands and traditional knowledge without consent. US-based nonprofit Amazon Watch express concerns that the 30x30 target might not adequately protect Indigenous territories and could lead to increased land conflicts. The issue is the lack of a robust monitoring framework to ensure rights are upheld.[63]

Just recently, the at sixth learning exchange of the International Network of Mountain Indigenous Peoples, which ended on June 4, 2024, the Huaran Declaration reiterated that Indigenous Peoples are the real solutions to the climate and biodiversity crises.[64]

15. Do protected areas help communities?

The report *Banking on Protected Areas: Promoting sustainable nature-based tourism to benefit local communities*, published in 2021, showed that for every dollar governments invests in protected areas and support for nature-based tourism, the economic rate of return is at least six times the original investment.[65] Researchers looked at four countries—Brazil, Fiji, Nepal and Zambia—and found that the benefits of investing in protected areas far outweigh the costs of that original investment; they were six times the amount invested for Brazil's Abrolhos Marine Park; eight times the amount invested for Nepal's Chitwan National Park; 16 times the amount invested for Zambia's Lower Zambezi Park and a whopping 28 times the amount invested in Zambia's South Luangwa National Park.

Other than in tourism, there are very few examples of communities benefiting from protected areas. This is despite the fact that benefit sharing is one of the three guiding pillars of the Convention on Biological Diversity (CBD).

Data available on the ABS Clearing-House—a platform for exchanging information on access and benefit-sharing, managed by CBD—and found that out of the total 5,234 Internationally Recognized Certificate of Compliance (IRCC) issued, only 60 pertained to access from protected areas and just one of these was for a commercial purpose and could eventually lead to some kind of benefits to the community. The certificate was provided by the Ministry of Environment, Panama, in May 2019 and the permit was set to expire in May 2022. Information on the genetic resource accessed and the person who accessed is confidential in this case. None is from India, which has issued the maximum certificates of compliance.

A working paper analysis by researcher Anthony Waldron and colleagues on the economic implication of the 30x30 target was published in 2020 to guide discussions during COP15.[66] The analysis showed overall gross economic output to be US $64–454 billion higher per year by 2050 if protected area coverage was increased than if it was not. This includes gains due to eco-tourism, agriculture and forestry revenue. Though the team predicted that fisheries would decline due to overfishing and climate change, the study found that if no-catch zones are part of Marine Protected Area policy, there could be spillover effects into catch zones, which would result in net gains for the fisheries industry. The authors found that

the ocean economy is likely to grow overall as decreases in wild-capture fisheries are offset by eco-tourism in marine protected areas. Social benefits of expanding protected areas are likely to be large as there would be overall benefits of US $170–534 billion per year by 2050 from avoided flooding, climate change, soil loss and coastal storm damage. The Waldron report suggests that benefits are weighed against the direct investment required to expand the protected areas on land and sea, which is estimated to cost US $103–178 billion per year by 2030.

Protected areas can help the world meet large environmental issues such as biodiversity loss and climate change. They can also increase access to food, clean water supply, medicines and protection from diseases and disasters. However, there are very few instances where the communities that have protected these lands have benefited directly from the protected area. In fact, there are concerns that these areas impede local economic growth.

It is not clear whether protection can help the people or not. Researchers from China and the US assessed 10,143 protected areas globally with matched samples and found that the synergistic relationship—protection and development—is common globally though it varies between biomes and continents. For example, this synergy is less frequent in the Amazon, Southeast Asia, and some developing areas, which are both biodiverse and poor. They found that small protected areas and those with better access to cities, moderate road density, and better baseline economic conditions have a higher probability of reaching synergy. The results are published in *Current Biology*, July 8, 2024.[67]

The 2020 United Nations World Tourism Organization (UNWTO) report shows that international tourist arrivals in 2019 reached 1.5 billion around the world.[68] However, compared to the Middle East, biodiversity-rich areas like Africa and the Americas saw lower growth. Despite the low level of tourism development, the industry has become a critical driver of socioeconomic progress in developing nations in Africa and other regions of the world. Tourism is a valuable agent for development because it stimulates the local economy while thriving on destination resources such as the natural environment, climate, cultural heritage and human resources in which developing countries have a comparative advantage.

A recent report titled *Forest and Trees: At the Heart of Land Degradation Neutrality* by the United Nations Convention to Combat Desertification (UNCCD) said that Indigenous People are not given their due for conserving forests and are instead criminalized and intimidated.[69] The report noted that IPLCs are the custodians of around 40 per cent of protected and ecologically intact landscapes and manage nearly 300 billion tonnes of carbon on lands owned by them, with almost negligible

investment. On the other hand, several governments, which spend billions of dollars on managing forests are unable to achieve similar results, it added.

Despite customary rights to more than half of the world's land mass, indigenous and local communities are legally or formally recognized as owning only 10 per cent of global lands. The report argued in favour of giving equal access and benefit sharing to these communities, along with women, for the protection, sustainable use and restoration of forest landscapes. Degradation of forest and other lands cost around US $10.6 trillion a year, or 17 per cent of the global Gross Domestic Product. The UNCCD report calculates it to be around $1,400 per person globally.

16. What role do IPLCs play in protected areas? What is the status of biodiversity in these areas? Are there examples of management of protected areas by IPLC?

It has been observed that biodiversity loss is lower in areas managed by IPLCs. A recent study published on July 15, 2024 in *Nature Ecology and Evolution* on the deforestation rates in the Brazilian Amazon shows that the area is losing more than 5,000 square kilometres every year.[70] The research team from the UK, Sweden and Australia, however, found that deforestation in areas protected by Indigenous communities was up to 83 per cent lower compared to unprotected areas. The findings are based on use of satellite imagery for the entire Amazon region and data from the Brazilian national census. The researchers point out in their study that these communities had low levels of socioeconomic development and this is a problem that needs to be resolved as communities with higher levels of socioeconomic development are less likely to trade off development with deforestation.

Similarly, it has been observed that in the more than 1,271 protected areas within or adjacent to the territories of Afro-descendant peoples, 77 per cent have reduced natural transformation. In Brazil, 67 per cent of these areas are located in certified municipalities with the presence of Quilombola Peoples without collective title.[71]

Though IPLCs are adept at taking care of their territories, there are fewer cases of their involvement with management of areas notified as protected by authorities. Understanding the efficacy in these circumstances is important as KMGBF prescribes involvement of IPLCs in management. The 2021 report *The Economics of Biodiversity: The Dasgupta Review* has a few examples of management by IPLCs.[72] These include the Gwaii Haanas National Park Reserve and Haida Heritage Site, which were established in 1993 on the island of Haida Gwaii in Canada due to concerns over the damage and destruction to ancestral sites. The

park consists of Pacific temperate rainforest that stretches from the wildlife rich sea up the slopes of the San Christoval Mountains. Humans are thought to have inhabited the area for 12,500 years, and the area is rich in cultural sites. The park is co-managed by the Council of the Haida Nation and Parks Canada, with the goal to maintain and restore the 'rich cultural and ecological heritage of the Gwaii Haanas' for the benefit of present and future generations. Both traditional knowledge and Western science are used in decision-making and planning. In 2010, the Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site was established adjacent to the terrestrial Protected Area. Management is based on yahguudang (respect for all living things) and aims to balance protection of the area with Haida food, cultural, economic and ceremonial needs. The Haida nation established the Haida Gwaii Watchmen, who monitor and steward the Protected Area and are formally integrated into its management.

Similarly, in a marine protected park established in 1995 in Cabo Pulmo, in Baja California, Mexico, overfishing emptied the coral reef and destroyed livelihoods of the villagers. In response to a petition by the community, the Mexican government set the Cabo Pulmo National Park. Commercial fishing was banned, and the local people oversaw the management and enforcement of the no-take marine reserve. In 1999–2009, total fish biomass increased by over 450 per cent, from 0.75 tonne per hectare (t/ha) ha to 4.24 t/ha, and the biomass of top predators and carnivores increased by 11 and four times, respectively. The recovery of top predators and carnivores is particularly significant, as this suggests that Cabo Pulmo National Park is approaching a state that is seen in systems with little or no fishing pressure. The local people benefit from the spillover of fish from the reserve to their fisheries; ecotourism has boomed, providing livelihoods for local people and incentives to continue to maintain and invest in Cabo Pulmo National Park.

17. Are protected areas effective?

The jury is out on this. More than US $121 billion is invested annually into biodiversity conservation worldwide. But there is a lack of understanding of how the protected areas are functioning and how investments improve their quality.

A study published in the journal *Science* on April 25, 2024 suggests that conservation either improved the state of biodiversity or at least slowed declines in two-thirds of the examples studied.[73] The team of researchers from across the world analysed 186 studies that measured biodiversity over time and compared outcomes under conservation action with a suitable counterfactual of no action (see *Figure 8)*. They found that interventions targeted at species and ecosystems, such as invasive species control, habitat loss reduction and restoration, protected areas, and sustainable management, are highly effective. This provides the strongest evidence to date that conservation actions are successful. Although the state of biodiversity is declining across the globe in absolute terms, conservation actions work most of the time—the challenge now is to expand these to the scale necessary to reverse the global biodiversity crisis, the authors say.

The studies they analysed have an interesting trend. For one, in the initial years starting in the 1890s, the focus was in favour of protected areas and their impact. Somewhere around 2000s, however, the research focus shifted to other aspects of conservation. Also, the analysis suggests that protected areas do not have as much impact as some other interventions. The researchers found that eradication, control, and management of invasive species showed the largest impact of conservation action than actions to reduce habitat loss and degradation, sustainable management of ecosystems, and protected areas.

According to researchers in a paper 'Gaps and weaknesses in the global protected area network for safeguarding at-risk species', which appeared in the journal *Science Advances* on June 2, 2023, by enhancing the protection of existing protected areas and expanding existing park networks across just 1 per cent of the planet's land area, the essential habitats of 1,191 animal species that are especially at risk of extinction can be protected.[74]

On the other end of the spectrum are studies which show that protected areas fail to protect biodiversity. One of the main reasons for this is the inability to truly protect these areas. In a study published in the journal *Science* in 2018,[75] in Europe, when researchers investigated the impact of industrial trawl fishing and sensitive indicator species in and around 727 marine protected areas (MPAs), they found that 59 per cent of MPAs are commercially trawled, and average trawling intensity across MPAs is at least 1.4-fold higher as compared with non-protected areas. Abundance of sensitive species (sharks, rays and skates) decreased by 69 per cent in heavily trawled areas.

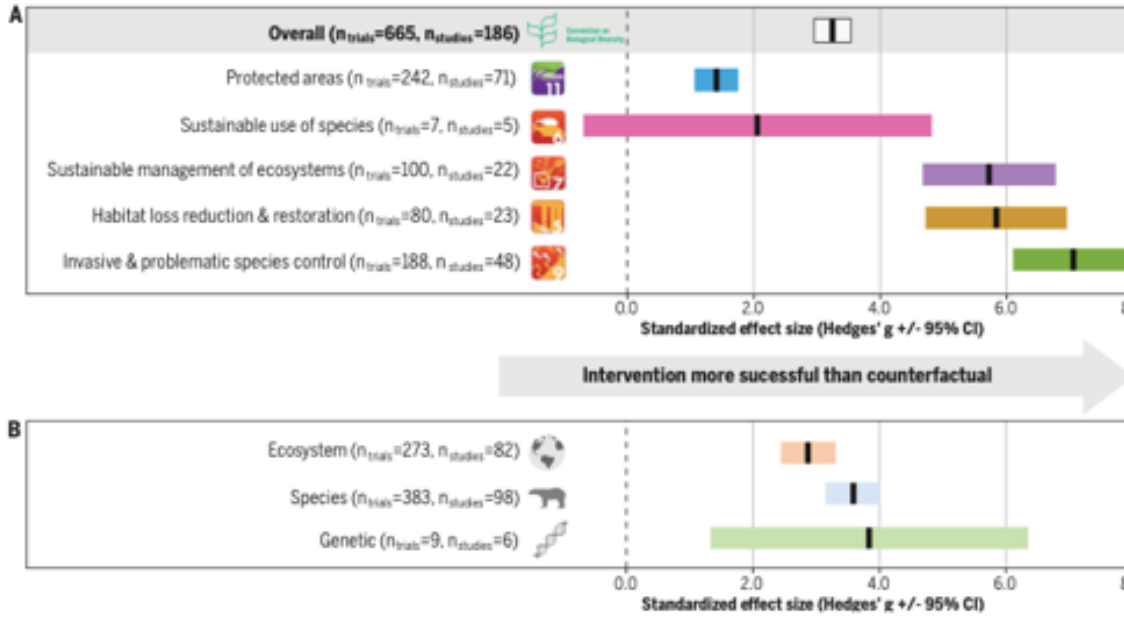
Similarly, in a study was published in *Nature Sustainability* on January 19, 2023,[76] researchers from China reported that an assessment of human impacts on forest structural density using satellites indicates that anthropogenic degradation is pervasive even in forest areas that are formally protected or perceived to be intact.

The quality of management of the vast majority of reserves is not known to the extent that many are suspected to be 'paper parks'. While developing the Paper Park Index for evaluating marine protected area effectiveness, researchers from the Institute for the Oceans and Fisheries, University of British Columbia, found that out of the 184 MPAs studied, 27 per cent are likely 'paper parks'. The index was published in the journal *Marine Policy*.[77]

Proven links between improved reserve management and the delivery of conservation outcomes are even more elusive suggests a paper published in the journal *Biological Conservation* way back in November 2015.[78] Researchers looked at how management effectiveness scores change in protected areas receiving conservation investment, using a globally expanded database of protected area management effectiveness and the 'management effectiveness tracking tool' (METT). Of 1,934 protected areas with METT data, 722 sites have at least two assessments. Mean METT scores increased in 69.5 per cent of sites while 25.1 per cent experienced decreases and 5.4 per cent experienced no change over project periods.

In order for protected areas to be effective, they should be connected through corridors as well as integrated into wider landscapes, seascapes and the ocean. In 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) assessed that only 9.3–11.7 per cent of terrestrial protected areas were adequately connected[79] (see *Figure 8*).

Figure 8: Effect of conservation



Source: Penny F. Langhammer, et al. 2024. 'The positive impact of conservation action' in Science Volume 384, Issue 6694

Many protected and conserved areas are isolated from other intact natural habitats, with many of their resident species effectively marooned. Small, isolated populations tend to decline or disappear over time, due to inbreeding and genetic deterioration. Conversely, even quite small reserves can function effectively if they are connected to other natural areas. Ensuring that a system of protected and conserved areas is well connected is therefore extremely important. Ecological corridors are one conservation tool that has been documented to be effective for plants as well as animals. The theory of island biogeography predicts that isolated ecosystems lose species. Connecting natural ecosystem is thus important to allow regular species movement, occasional genetic interchange, and movement in response to changing conditions. While these areas are important for migrations of animals, they also allow for climate change adaptation by allowing gradual range shifts in response to climate change by restoration of corridors through agricultural landscapes.[80]

18. How are protected areas being dealt with in the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement?

The Biodiversity Plan mandates that 30 per cent of oceans are protected by 2030. Hopes are high that the world would be able to meet the 30x30 target in oceans as on June 19, 2023, a new agreement was reached under the United Nations Convention on the Law of the Sea. This is the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ) Agreement) by the Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction. The high seas are areas beyond 200 nautical miles from the exclusive economic zones of coastal countries. Areas beyond national jurisdiction account for as much as two-thirds of the oceans.

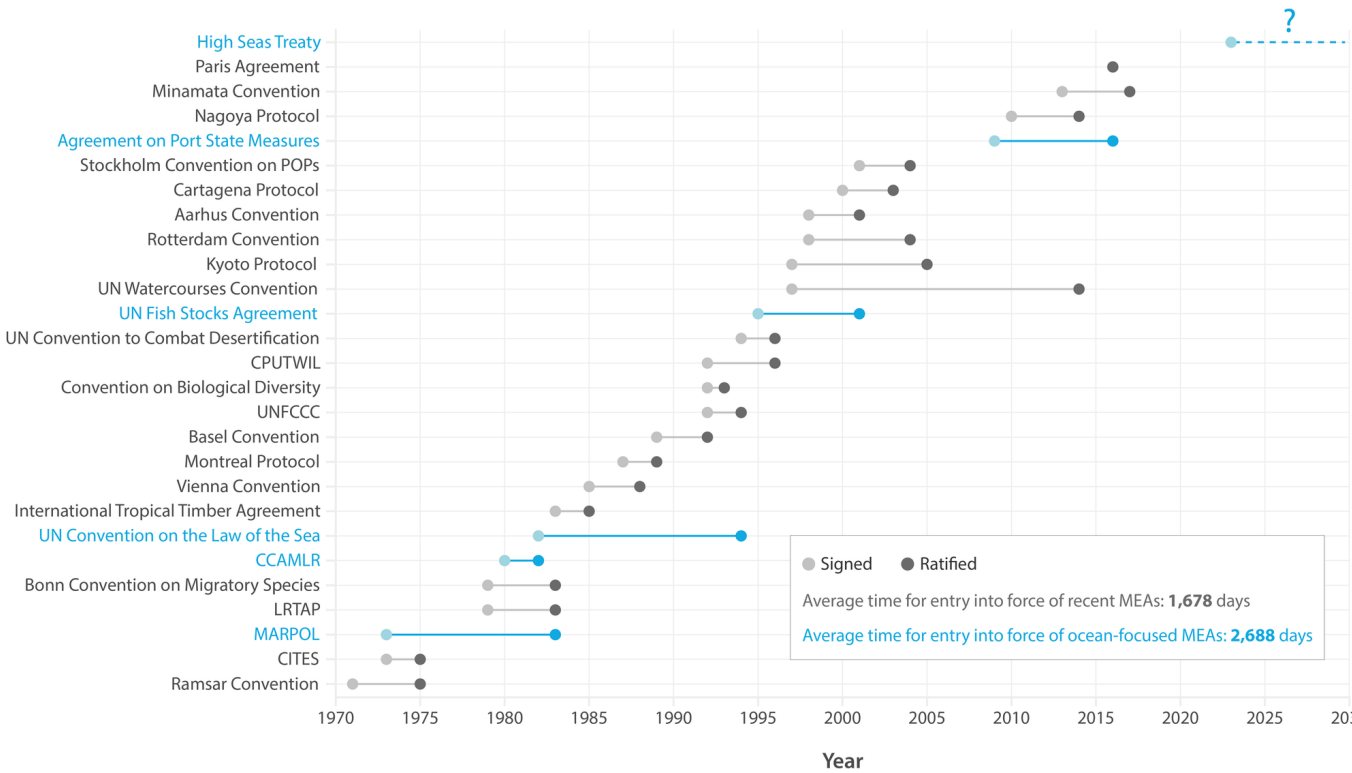
The BBNJ agreement was reached after nearly two decades of negotiations in various formats. It is the third implementing agreement to the United Nations Convention on the Law of the Sea (UNCLOS), which was adopted on December 10, 1982 and came into force on November 16, 1994. The first two are the 1994 Part XI Implementation Agreement (which addresses the exploration and extraction of mineral resources in the international seabed) and the 1995 UN Fish Stocks Agreement (which addresses the conservation and management of straddling and highly migratory fish stocks).

The Agreement is open for signature by all States and regional economic integration organizations from September 20, 2023 to September 20, 2025, and will enter into force 120 days after 60 members ratify it. On 22 January, Palau became the first member to ratify the agreement. As of June 2024, 91 countries have signed the BBNJ Agreement, and eight Parties have ratified it. On July 2, 2024, India's Union Cabinet approved the decision to sign the BBNJ Agreement.

The agreement would be able to help meet the 30x30 target only after it enters into force. There are concerns that this is not likely to happen any time soon. Researchers from Sweden in a comment dated April 3, 2024 in the open-access,

peer-reviewed journal *npj Ocean Sustainability* said that on average, multilateral environmental agreements (MEAs) have taken over four years to move from signature to entry into force, while ocean-focused MEAs have taken nearly twice as long (see *Figure 9*). While it is encouraging that 83 States signed the BBNJ Agreement within two weeks of it opening for signature, it is also notable that UNCLOS was signed by 115 States on the day it opened for signature, but then went on to take 12 years to enter into force.[81]

Figure 9: Entry into force of recent international multilateral environmental agreements (MESs) since 1970



Source: Robert Blasiak and Jean-Baptiste Jouffray, 2024. When will the BBNJ Agreement deliver results? NPJ Ocean Sustainability, volume 3 https:// www.nature.com/articles/s44183-024-00058-6

Marine protected areas (MPAs) help protect marine organisms from threats such as overfishing, habitat destruction and pollution while helping to replenish fish stocks, supporting both the natural environment and the economies of coastal communities. There are two types of MPAs: no-take and multiple-use. Fishing, drilling and mining are prohibited from the no-take zone.

Currently, some 8.2 per cent of the ocean is under some form of protection, with just 2.9 per cent considered fully or highly protected. Since no global mechanism

has existed to establish MPAs in Areas Beyond National Jurisdiction (ABNJs), only a handful have been designated, almost entirely in waters around Antarctica. Of the 16,854 designated or implemented MPAs today, just 37 are found in ABNJs. A continued focus on establishing MPAs within exclusive economic zones (EEZs) (which collectively cover just 36 per cent of the ocean) would mean that meeting Target 3 without the Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ) Agreement would require States to convert almost the entirety of their respective EEZs into MPAs.

Rapid ratification of the BBNJ Agreement is crucial, as entry into force is just the first step in an (at least) nine-step process. After this, the first COP to be organized after a year where a Scientific and Technical Body (STB) would be put in place and members would be selected. Members would have to submit proposal to the STB for any area-based management tools including MPAs. The STB would then conduct a preliminary review of any such proposals and publicly announce the results of the review. There would then be a consultation (the length of which has not yet been specified) and assessment process would be initiated, to gather input from States, bodies of relevant legal instruments and frameworks, and other groups including Indigenous Peoples and local communities, the scientific community, and civil society. The proposal would then be revised as per the recommendations. The STB would then assess the proposal and make a recommendation to the COP. It is only then that the COP will seek to take a consensus-based decision on the proposal, but if a two-thirds majority votes that efforts to reach consensus have been exhausted, then the proposal can be moved to a vote and become adopted if supported by at least three-quarters of States. The decision of the COP would become binding following a further120-day period during which objections may be registered. Due to this long process, it is not likely that the BBNJ Agreement would result in any new MPAs by 2030.

MPAs can be more easily created by governments in national waters where there are dedicated legal systems in place. National waters represent 39 per cent of the global ocean, and currently 18.43 per cent of these waters are designated as protected areas. In contrast, only 1.44 per cent of ABNJ, which makes up the remaining 61 per cent of the global ocean, has been established as protected areas.

19. Are any nature-based solutions linked to Target 3?

Target 19[82] of the Biodiversity Plan has identified innovative finance schemes, such as biodiversity offsets and credits, payment for ecosystem services, green bonds and benefit-sharing mechanisms as a means of mobilizing resources for implementation. These come in the category of Nature-based Solutions (NbS) defined for the first time in 2016 by the International Union for Conservation of Nature (IUCN).[83]

Many of nature-based solutions can be implemented in protected areas. Though the main aim of protected areas is biodiversity protection, over the years they have been used to put nature-based solutions, especially for climate change, in place.

A 2023 technical report by the Canadian Parks and Wilderness Society entitled *Protected Areas as a Nature Based Climate Solution* suggests that effectively designed and managed protected areas offer a high total per hectare value as a nature-based climate solution in terrestrial ecosystems, and can mitigate 10–12 billion tonnes of CO_2 equivalent per year (10–12 gigatonnes (Gt) CO_2e/year) by 2030 and 10–18 Gt CO_2e/year by 2050. This is enough to reduce peak warming by about 0.1–0.3 °C, the report says.[84]

In June 2024, London-based data aggregator Allied Offsets analysed a sample of 1826 nature-based carbon projects (these work on the simple principle that investors can buy credits to offset their carbon emissions) and found that 266 projects overlap protected areas.[85] This amounts to 14.6 per cent of the nature-based projects. Even if only those projects that have a threshold of 50 per cent overlap were considered, it was found that 105 projects or 5.7 per cent of the total sample had a high overlap. These 'high overlap' projects have issued ~217 million carbon credits. Though these currently originate from a handful of large-scale projects but the carbon credits generated in these projects amount to around 20 per cent of all nature-based carbon credits that have been issued over time (see *Table 4*).

However, using protected areas for carbon credits and offsets is a problem. Protected areas are already being protected for nature and already have structures in place to protect and restore the ecosystems. It is not likely that these areas are

Table 4: Ten projects with the greatest number of carbon credits for sale and a high percentage of overlap with protected areas (>50%)

Registry	Protected area intersections	Per cent overlap	Available credits	Avg. est. price (US $)
Verra	Ngiri (DRC), which is one PA. The IUCN classification of this PA is unavailable.	100.00	241,84,738	0.88
Verra	Mainly Cardamom National Park (Cambodia). Seven different PAs, of which three are in the strict management category.	98.90	21,526,477*	1.52
Verra	Cordillera Azul (Peru), which is one PA, in the strict management category	96.50	2025,724	2.83
Verra	Three different PAs, of which one in the strict management category (Keo Seima Wildlife Sanctuary, Cambodia)	99.00	8,026,132	3.57
Verra	41 different PAs, of which two in the strict management category (Kariba, Zimbabwe)	74.40	5,038,391**	1.47
Verra	37 different PAs, of which three in the strict management category (Northern Rangeland Trust, Kenya)	99.70	4,230,963	8.82
Cercarbono	Munduruku indigenous territory (Brazil), which is one PA. The IUCN classification of this PA is unavailable	78.10	4,034,650	n/a
Verra	15 different PAs, of which six in the strict management category (Caribbean Guatemala)	59.30	2,198,061	4.13
Verra	14 different PAs, of which 4 in the strict management category (Luangwa Community Forests Project, Zimbabwe)	94.70	2,144,723	2.35
Verra	Three different PAs, of which 1 in the strict management category	99.90	1,397,635	2.08

* Verra has suspended the issuance of credits for this project because of stakeholder and human rights concerns.
** Verra has suspended the issuance of credits for this project over quality concerns.

Source: Jacobus Petersen, 2024. Do carbon market projects take place in protected areas? https://blog.alliedoffsets.com/do-carbon-market-projects-take-place-in-protected-areas. Accessed on August 21, 2024.

under threat and need to be protected. This duplication provides a scope of using the same asset twice without controlling either biodiversity loss or climate change. Also, estimates of loss of biodiversity have gone wrong, resulting in over valuing of credits in areas. One example of this are the offsets sold by South Pole, the world's largest carbon-offsetting firm, for protecting the forest on the banks of Lake Kariba in Zimbabwe.[86] The Kariba project is among the world's first 'avoided deforestation' programmes and promised that by deterring local people from chopping down trees, greenhouse gases would not be released. Leading corporations, including Volkswagen, Gucci, Nestlé, Porsche and Delta Air Lines bought Kariba credits. Audits showed that deforestation did not occur at the expected rate in the control areas.

In October 2023, a study by CSE also found that carbon credits are either overestimated or fail to deliver the promised environmental benefits. The study showed that current voluntary carbon market seems to be working for the interests of project developers, auditors, verifiers and registries without much effect on the

ground.[87] CSE concluded that the climate-risked world does not need this business of creative carbon accounting.

Previously, in January 2023, an investigation by Britiah daily the *Guardian*, German weekly *Die Zeit*, and SourceMaterial, a UK-based non-profit investigative journalism organization looked into the forest carbon offsets approved by the world's leading certifier Verra, and found that more than 90 per cent of their rainforest offset credits are likely to be 'phantom credits' and do not represent genuine carbon reductions.[88]

These learning could help regulate the biodiversity credit market. These biocredits are similar to carbon credits but are not designed to offset or compensate for actions with negative impacts on biodiversity. Instead, proceeds from the sale of biocredits are used to protect and restore biodiversity where it exists. On the face of it, this seems to be a good idea considering that it could lead to protection of biodiversity rich areas as mandated in Target 3.

The Biodiversity Credit Alliance (BCA) which is a partnership of scientists, academics, conservation practitioners, and standard setters facilitated by the United Nations Development Programme (UNDP) and the United Nations Environment Programme Finance Initiative (UNEP FI), was launched at COP15 to provide guidance for the establishment of a credible and scalable market that stands up to the scrutiny of multiple stakeholders, including Indigenous Peoples and Local Communities.[89] The organization has identified case studies of nature markets which have benefitted Indigenous Peoples and Local Communities from UNPFII-recognized socio-cultural regions. BCA defines a biodiversity credit as 'a certificate that represents a measured and evidence-based unit of positive biodiversity outcome that is durable and additional to what would have otherwise occurred' (see *Table 5*)**.**

Currently, there is no one place or a registry where information on biodiversity credits is available. In October 2023, the Pollination Group, a specialist climate change investment and advisory firm, published *State of Voluntary Biodiversity Credit Markets: A Global Review of Biodiversity Credit Schemes*, in which the projects are documented[90] (see *Map 6*).

Many of these are based in protected areas. For example, the Government of Niue and the non-profit Tofia Niue launched the Ocean Conservation Commitments (OCCs) in September 2023 under which a total of 127,000 OCCs have been created based on the size of Niue's Moana Mahu Marine Protected Area (this spans

Table 5: Case studies of nature markets benefitting Indigenous Peoples and local communities from United Nations Permanent Forum on Indigenous Issues (UNPFII) recognized socio-cultural regions

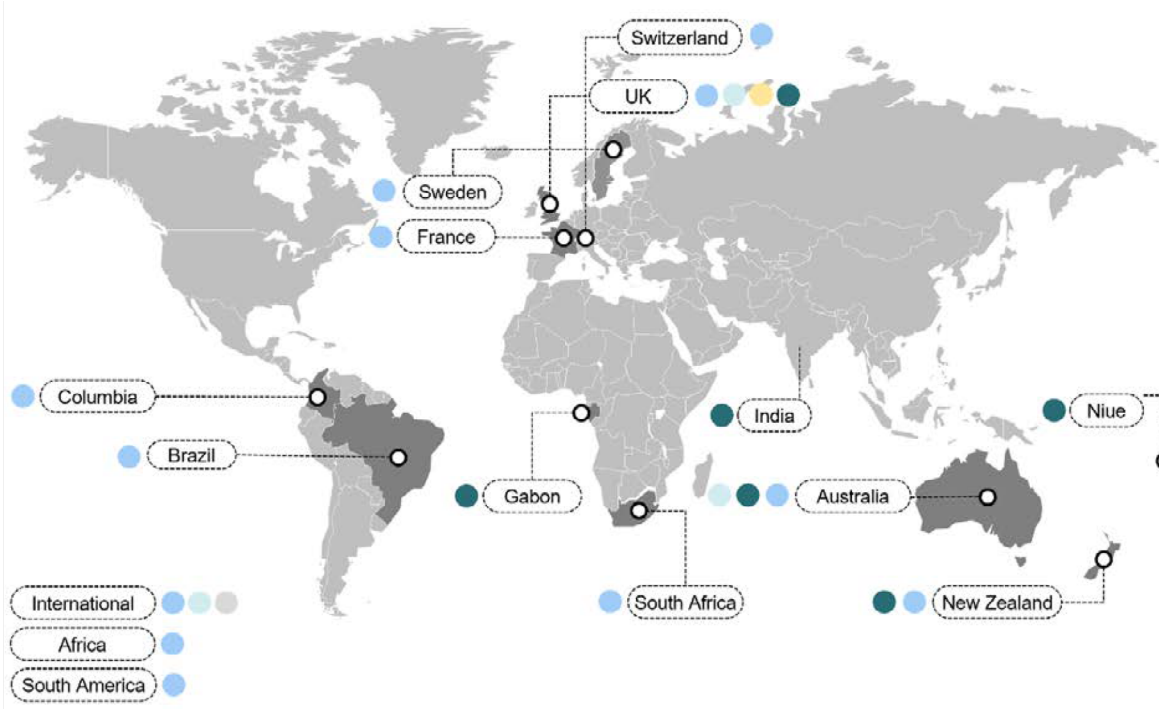
UNPFII-recognized socio-cultural region	Case example
Africa	• ValueNature, South Africa • Yaeda–Eyasi Community-led REDD Plan Vivo project, Tanzania • EarthAcre, Kenya • Wadappt, Namibia/South Africa
Asia	• Forthcoming tiger bond in four Asian tiger-range states (Indigenous Peoples and Local Communities)
Central and South America and the Caribbean	• Heritage Colombia/Herencia Colombia (HECO) Terrasos: Partnership for Forest Protocol for Voluntary Biodiversity Credits (VBC), Colombia (Indigenous Peoples and Local Communities) Ashaninka case re Biodiversity Law, Brazil • Savimbo, Colombian Amazon
North America	• The Great Bear Rainforest and Haida Gwaii agreements
Pacific	• Babatana Rainforest Conservation Project, Choiseul, Solomon Islands (Plan Vivo and UNEP) • Rarakau first rainforest carbon project in New Zealand—protecting 738 ha of Maori-owned indigenous rainforest (Plan Vivo) • East Coast Exchange, Tairāwhiti and Hawkes Bay, Aotearoa New Zealand

Source: Biodiversity Credit Alliance, 2023. Communities and nature markets: Building just partnerships in biodiversity credits. Discussion paper https://www.biodiversitycreditalliance.org/wp-content/uploads/2024/05/BCA-Discussion-Paper_Building-just-partnerships-in-Biodiversity-Credits.pdf accessed on August 21, 2024

127,000 square kilometres). Interested buyers can purchase one OCC for 20 years at the rate of US $148 (NZD $250). Non-governmental organizations such as the Blue Nature Alliance, Conservation International and private donors have already come forward and invested.[91] Similarly, biocredits sold by Besparingsskog, a forest cooperative in Sweden, have been purchased by Swedbank for an undisclosed amount to protect 13 hectares of forested area over a period of 20 years.[92] There are some not listed by Pollination Group such as credits sold by rePLANET and purchased by pharma major GlaxoSmithKline to protect Cusuco National Park in Honduras.[93]

The Indian government has also indicated an intention to launch its Green Credit Programme, to complement the newly launched domestic carbon market.[94] The main thing here would be learn from the experiences in the climate sector. There have been efforts to define a unit of Voluntary Biodiversity Credit (VBC) just like that of a carbon credit. This has been calculated as a 1 per cent gain per hectare in the median value of a basket of taxa that encompass the conservation objectives for the site or a 0.001 per cent reduction in the cumulative extinction risk. This is as per the Wallacea Trust methodology which, according to them, can be applied to projects in all 1,300 terrestrial and marine ecoregions around the world. Wallacea Trust has also set up an independent academic peer review system

Map 6: Biocredit schemes



Private sector-led programs

- GreenCollar, NaturePlus™ Credits (*Australia*)
- Terrain NRM, Cassowary Credits (*Australia*)
- South Pole, EcoAustralia™ (*Australia*)
- Wilderlands, Biological Diversity Units (*Australia*)
- Ekos, Sustainable Development Units (*New Zealand*)
- Plan Vivo, PV Nature Biodiversity Certificates (*International*)
- Wallacea Trust, Biodiversity Credits (*International*)
- VERRA, Verified Impact Standard (SD VISta) (*International*)
- Climate Trade/Terrasos, Biodiversity Credits (*Colombia*)
- Ecosulis CreditNature (*United Kingdom*)
- ValueNature Biodiversity Credits (*South Africa*)
- OpenEarth, Marine Ecosystem Credits (*International*)
- Organisation for Biodiversity Certificates (*France*)
- Recelio, Dynamic Biodiversity Tokens (Switzerland)
- Orsa Besparingsskog (*Sweden*)
- BioCarbon Registry (*Colombia*)
- CarbonZ (*New Zealand*)
- Credit Nature (*Scotland*)
- InvestConservation (*International*)
- Single Earth (*International*)
- South Pole (*Colombia*)
- Botanic Gardens Conservation (*International*)
- ERA Brazil (*Brazil*)
- New Atlantis Labs (*International*)
- Rebalance Earth (*Africa*)
- Savimbo (*Colombia*)

Government-led programs

- Proposed Nature Repair Market (*Australia*)
- Ocean Conservation Credits (*Niue*)
- Biodiversity credit system (*Gabon*)
- Green Credit Programme (draft rules introduced) (*India*)
- Biodiversity Credit System (under consultation) (*New Zealand*)

Governance/integrity initiatives

- World Economic Forum Biodiversity Credits Working Group (*International*)
- Biodiversity Credits Alliance (*International*)
- Taskforce for Nature Markets (*International*)
- IUCN Global Standard for Nature Based Solutions (*International*)

University-led programs

- Queen Mary University (*United Kingdom*)

Independent standards

- VERRA (*International*)
- Plan Vivo Foundation (*United Kingdom*)

Source: State of Voluntary Biodiversity Credit Markets: A Global Review of Biodiversity Credit Schemes, https://pollinationgroup.com/wp-content/uploads/2023/10/Global-Review-of-Biodiversity-Credit-Schemes-Pollination-October-2023.pdf

for verifying claims. The Biodiversity Futures Initiative, an international group of leading academics funded by the Economic and Social Research Council and led by Nottingham University, is providing this service to the Trust.[95] The Biodiversity Futures Initiative is also part of the process and provides an independent peer review. The audits would also be used by registry bodies to issue and retire the credits.

Since 2022, efforts have been made to promote biocredits at different fora. They were discussed at COP28 of the UNFCCC in Dubai in December where Indigenous Peoples and Local Community leaders and co-chairs of the International Advisory Panel on Biodiversity Credits (IAPB) discussed biodiversity credits and nature markets, emphasizing learnings and opportunities for Global South nations.[96] A South-South learning implementation lab co-hosted by NatureFinance and FSD Africa, united global investment stakeholders and multilateral development banks to leverage learnings from the Amazon and the African continent on establishing a robust, equitable biocredit market.

It is predicted that the market for biodiversity credits could grow quickly and could reach US $2–8 billion by 2030 then US $18–43 billion by 2050.[97] Simon Morgan, chief biodiversity officer and co-founder of ValueNature, a company that is facilitating the development of biodiversity credits and plans to bring them to market in 2024, believes that these could generate all the required funds for biodiversity protection. 'This is why we are so excited to see it move forward,' he said.

Just recently, Biodiversity Credit Alliance recently issued a set of recommendations to enhance the integrity of biodiversity credits.[98] The United Kingdom and the French governments are leading the way in creating a roadmap for a high-integrity biodiversity credits market in 2023 and has Global Roadmap for biodiversity credit markets was launched at the Summit for a New Financial Pact in Paris. The International Advisory Panel on Biodiversity Credits has carried out a stakeholders' consultation and plans to launch a market framework during COP16 at Colombia.[99]

A survey by IAPB also indicated that funding is important for the working of biocredits and so far this is in short supply.[100]

Compared to biocredits, offsets have not received much support despite biodiversity compensation being legally required in 37 countries as a direct prerequisite for the permitting of projects in certain infrastructure sectors or habitat types. The reason is as biodiversity of each place is unique, nothing can be done elsewhere to offset

the loss. Specifically, protecting biodiversity in a protected area in one place is not going to make up for biodiversity lost in other areas.

The Biodiversity Plan also supports use of other innovative financing schemes mentioned. These include bonds such as Rhino Bonds and Coral Bonds, which are to be used to finance projects with environmental benefits. In 2022, the World Bank priced the Wildlife Conservation Bond, commonly called the Rhino Bond, to support South Africa's efforts to protect and increase black rhino populations in two protected areas in South Africa, the Addo Elephant National Park and the Great Fish River Nature Reserve.[101] Rhinos are considered an umbrella species that play a crucial role in shaping entire ecosystems on which countless other species depend. Just recently, in June 2024, GEF also supported the Indonesia Coral Bond to finance work on ocean biodiversity and manage over 5 million hectares of marine protected areas in Indonesia.[102] In this case, project success will be measured based on coral reef health and management effectiveness targets.

Additionally, payment for ecosystem services (PES) could also be used to finance conservation. Governments around the world spend some $2 billion annually in payments for watershed-related ecosystem services and another $3–4 billion in payments for biodiversity-related services.[103] There are more examples of PES for protecting private land than in protected areas which makes this useful scheme when working with indigenous communities. Some examples of PES schemes include the Marine Legacy Fund of Tanzania which pays coastal communities for conservation and operational expenses by utilizing profits from commercial fishing licenses, revenue sharing from marine ecotourism, and taxation on oil and gas businesses as explained in a working paper published in April 2024 by ODI, an independent, global affairs think tank, based in London. According to a March 2018 research paper by International Institute for Environment and Development, in Costa Rica, the government runs a PES project that bundles together four ecosystem services: carbon sequestration, biodiversity protection, water regulation and landscape beauty. It makes direct cash transfers to private landowners for five-year contracts for different modalities of forest protection, reforestation, sustainable forest management and agroforestry. This was created by legislation in 1996 and the government provides the payments through the Budget.[104]

Clearly, though implementing nature-based solutions in protected areas could work well and can even be used to increase the area under protection, regulation would be key if these have to work.

20. What indicators are being discussed to monitor progress?

The Kunming-Montreal Global Biodiversity Framework (KMGBF) is accompanied by a detailed monitoring framework comprising a set of agreed indicators for tracking progress towards the Goals and Targets of the Framework. The monitoring framework will provide information on how the world is faring in terms of achieving the Goals and Targets of the framework.[105]

Even though work to meet Target 3 has begun, there is still lack of clarity on the indicators that would be used to determine whether the protected areas are working as they should. This gap was recognized at COP15 and an Ad Hoc Technical Expert Group on Indicators (AHTEG) was established to put down indicators that countries could use. The group is composed of 45 experts—30 nominated by Parties and 15 by Observers.

Since then, the issue has been discussed at multiple Subsidiary Body on Scientific, Technical and Advice (SBSTTA) meetings. In its report dated May 18, 2024, the group identified two major gaps in the indicators for Target 3.[106] For one, there is no information on how much these protected areas and OECMs included areas of particular importance for ecosystem functions and services and the extent of connectivity of these areas. Second, there is lack of guidance for the identification and recognition of indigenous and traditional territories. Final decision on the indicators would be taken at COP16.

Headline and binary indicators are included in the national reporting template, whereas the component and complementary indicators are optional.

The monitoring framework for the Kunming-Montreal Global Biodiversity Framework identifies the following indicator for this target:[107]

HEADLINE INDICATORS: 3.1

Coverage of protected areas and OECMs

Component indicators

- Protected area coverage of Key Biodiversity Areas
- Protected Area Management Effectiveness (PAME)
- ProtConn
- Protected Area Connectedness Index (PARC-Connectedness)
- Red List of Ecosystems
- Connectivity Indicator (in development)
- The number of protected areas that have completed a site-level assessment of governance and equity (SAGE)
- Species Protection Index

Complementary indicators

- Protected area downgrading, downsizing and degazettement
- Status of Key Biodiversity Areas
- IUCN Green List of Protected and Conserved Areas
- Number of hectares of UNESCO designated sites (natural and mixed World Heritage sites and Biosphere Reserves)
- Protected area and OECM management effectiveness (MEPCA) indicator
- Protected Area Isolation Index (PAI)
- Protected Areas Network metric (ProNet)
- Extent to which protected areas and other effective area based conservation measures (OECMs) cover Key Biodiversity Areas that are important for migratory species
- Coverage of Protected areas and OECMS and traditional territories (by governance type)
- Ramsar Management Effectiveness Tracking Tool (RMETT)
- Percentage of biosphere reserves that have a positive conservation outcome and effective management
- Extent of indigenous peoples and local communities' lands that have some form of recognition
- Species Protection Index
- Number of countries implementing national legislation, policies or other measures regarding free, prior and informed consent related to conservation
- Red List of Ecosystems
- Proportion of terrestrial, freshwater and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures

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Target 3 of the Convention on Biological Diversity's (CBD's) Kunming-Montreal Global Biodiversity Framework (KMGBF) prescribes that 30 per cent of the earth's surface is protected by 2030. This entails increasing the current value of 17.5 per cent of land and 8.46 per cent of oceans. In December 2024, it will be two years since KMGBF was put in place and only six more years will remain to ensure that the target is met.

The most biodiverse areas on earth are those where Indigenous peoples and local communities live. The world recognizes the important role they play, but how and to what extent Indigenous peoples and local communities are involved in the progress of implementing Target 3 is still to be seen. How protected areas help the world meet the three goals set under the Convention on Biological Diversity is also to be seen.

Target 3 is ambitious, but are the efforts sufficient? This status report looks at the most important questions about protected areas and documents the progress.

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