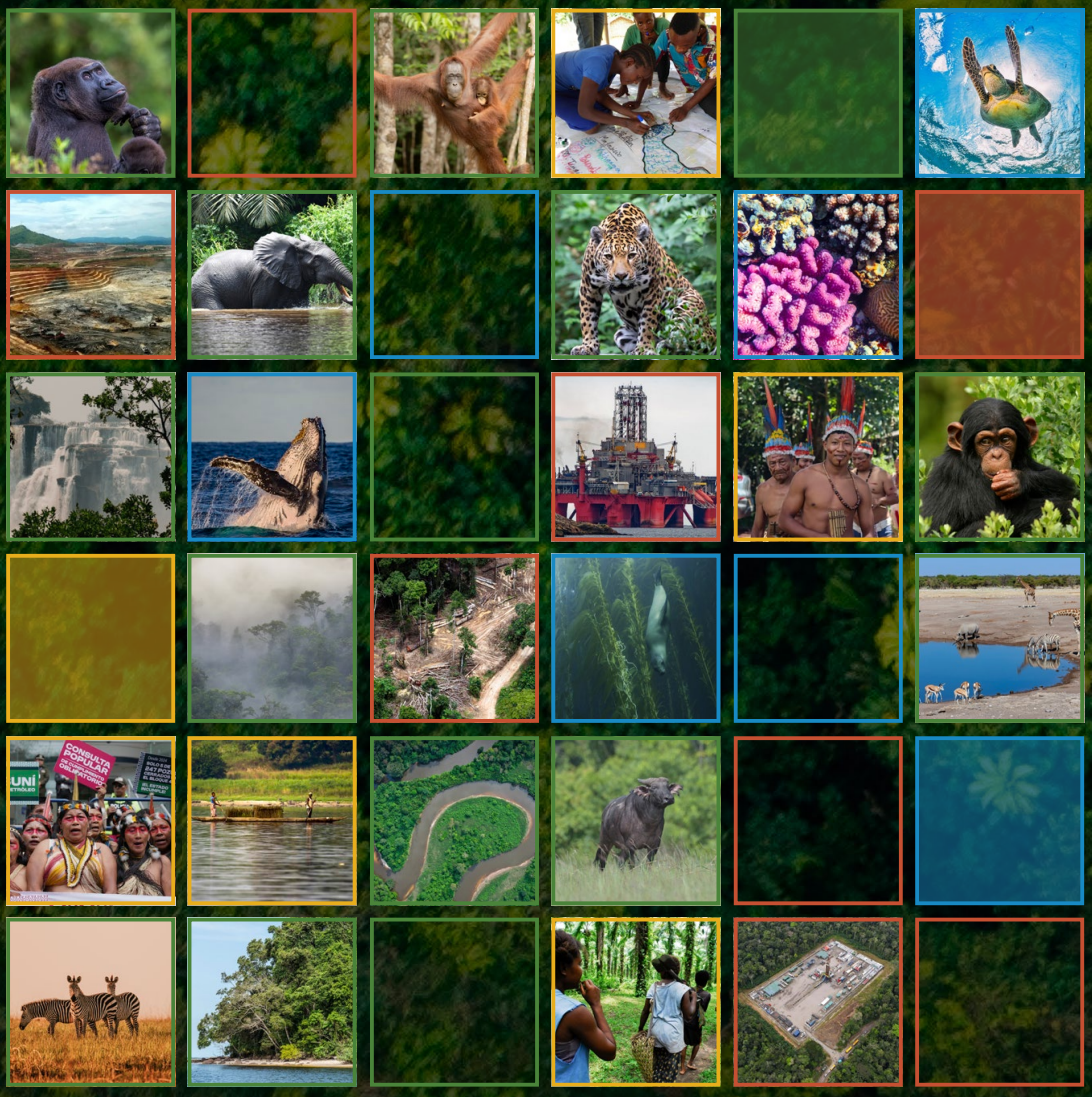
HIGH-INTEGRITY 30x30 IMPLEMENTATION

Industrial Threats and Promising Pathways for Effective and Rights-Based Biodiversity Conservation



Earth Insight · IUCN · WCPA World Commission on Protected Areas · KBA Key Biodiversity Areas · IIFB International Indigenous Forum on Biodiversity 30 Years · Global Alliance of Territorial Communities · Campaign for Nature



Aerial view of a river winding through dense mangrove forest in Thailand.
Image Credit: siwabudv via Envato Elements

Acknowledgements

This report was prepared by Earth Insight in partnership with the IUCN World Commission on Protected Areas (IUCN WCPA), the KBA Secretariat, the International Indigenous Forum on Biodiversity (IIFB), the Global Alliance for Territorial Communities (GATC), and Campaign for Nature. We are grateful to these partners for their collaboration and guidance throughout the development of the report.

At Earth Insight, the report was led by Florencia Librizzi (Deputy Director), who provided programmatic oversight and strategic direction; Erinn Drage, who led the research, analysis, and drafting; and Anna Bebbington (Research Manager), who led the geospatial research and analysis, supported by Lara Jordan and Tiffany Hsu (Spatial Analysts). Additional guidance was provided by Tyson Miller (Executive Director), Juan Pablo Osornio (Engagement Director), and Mariana Gomez Soto (Senior Policy Analyst, Colombia). Edith Espejo (Senior Program Manager) managed the coordination and production of the report, and Patrick Stephen Brown led the design.

We are also deeply grateful to the additional contributors and reviewers who shared their expertise and experience, including Alianza Mesoamericana de Pueblos y Bosques (AMPB), Stuart Butchart (BirdLife International), Wendy Elliott and Sofia Venturini (WWF International), Bibiana Garcia (WWF Germany), Madhu Rao and Stephen Woodley (IUCN WCPA), Andrew Plumptre (KBA Secretariat), Paola Yanguas Parra (IISD), Mbacke Seck (Hann Baykeeper), Phaekkday Nguon (European Forest Institute), Rainforest Foundation UK (RFUK), CELCOR, Fundación PRISMA, the Center for Energy, Ecology, and Development (CEED Philippines), and Andres Gomez (Fossil Fuel Treaty).

Suggested Citation

Earth Insight, The International Union for Conservation of Nature World Commission on Protected Areas, The Key Biodiversity Areas Secretariat, The International Indigenous Forum on Biodiversity, The Global Alliance of Territorial Communities, and Campaign for Nature. (2026). High Integrity 30x30 implementation: Industrial Threats and Solution Pathways for Effective and Rights-Based Biodiversity Conservation.

Disclaimer

The content contained in this document is provided for information purposes only. The publishers aim to provide the public with tools and analyses that elevate understanding, best practices, and ambitions for the protection of nature, climate, and people. This document has been prepared using publicly available information, with sources cited as of the date they were last accessed before publication. The publishers have undertaken all reasonable due diligence to ensure the accuracy of this information, but changes in circumstances after publication may impact its accuracy.

The publishers are not responsible or liable for the content of any third-party material that may be contained in this document. If you believe any information in this document is not accurately represented, please contact info@earth-insight.org with information supporting your position and a request for a correction. Earth Insight will review your request and make any necessary corrections.

Cover Images

Envato Elements; additional graphic composition by the authors.

Creative Commons License

This work is licensed under the Creative Commons license CC BY-ND-NC 4.0 DEED Attribution Noncommercial-NoDerivatives 4.0 International. Please find a copy of this license here. If you have any queries, please address them to info@earth-insight.org.

Table of Contents

EXECUTIVE SUMMARY 4

INTRODUCTION 6

ANALYTICAL FRAMEWORK 8

THE SCALE OF THE THREAT: MAPPING THREATS TO 30X30 SITES ACROSS TROPICAL COUNTRIES 11

1: LARGE-SCALE EXTRACTIVE AND INDUSTRIAL PRESSURES UNDERMINE 30X30 INTEGRITY 18

Case study: Beyond Coverage in Senegal's Protected Area Network 20

Case study: From Threats to the Reality of Extractive Development in Cambodia's Protected Areas 22

2: INDIGENOUS AND COMMUNITY STEWARDSHIP FACES INDUSTRIAL PRESSURES THAT THREATEN BIODIVERSITY GOALS 24

Case study: Industrial and Extractive Encroachment in Indigenous Territories in Peru 26

Case study: Papua New Guinea's Energy Transition Minerals and the Need for a Just Transition in the Face of 30x30 28

3: CRITICAL BIODIVERSITY REMAINS UNPROTECTED AND AT RISK 30

Case study: The Need for Biodiversity Protection Amid Extractive Pressures in Western Australia 32

Case study: Protecting Globally Significant Biodiversity in the Congo Basin Before It Is Lost 34

EVIDENCE-BASED INSIGHTS ON PATHWAYS TOWARD HIGH-INTEGRITY 30X30 IMPLEMENTATION 39

1: GEOGRAPHIC EXCLUSION POLICIES ARE NEEDED FOR 30X30 40

Case study: Correcting Course through Canada's Marine Protected Area Protection Standard 42

2: WE CANNOT COMPROMISE ON RIGHTS-BASED CONSERVATION 44

Case study: Indigenous Rights as a Foundation for Conservation in the Philippines 47

Case study: Community Managed Forests in the Maya Biosphere Reserve, Guatemala 48

3: TRANSFORMATIVE APPROACHES ARE VITAL FOR 30X30 IMPLEMENTATION 50

Case study: Colombia's Transformative Pathway for Halting Fossil Fuel Development in the Amazon and its Potential for 30x30 Integrity 52

Case study: Costa Rica as a strong example of High-Integrity 30x30 Implementation 54

KEY RECOMMENDATIONS 56

High-Integrity 30x30 Implementation .. 56

Beyond 30x30: Enabling High-Integrity Implementation Across the GBF 58

CONCLUSION 59

FULL METHODOLOGY (TECHNICAL METHODOLOGY) 60

GLOSSARY 66

ENDNOTES 68

EXECUTIVE SUMMARY



The Somone Lagoon and its mangroves, Senegal.
Image Credit: Cyril Papot via Adobe Stock

Executive Summary

Target 3 of the Kunming-Montreal Global Biodiversity Framework (GBF), often referred to as "30x30", calls on countries to effectively conserve at least 30% of the world's terrestrial, inland water, and marine areas by 2030, especially areas of particular importance for biodiversity. Yet expanding the quantity of protected and conserved areas coverage alone will be insufficient to deliver on the GBF's broader goals of halting and reversing nature loss and achieving a world living in harmony with nature.

This report applies a **high-integrity 30x30 implementation** framework to explore how conservation ambitions are being translated into meaningful ecological outcomes on the ground. **High integrity implementation requires conservation that is effective, equitable, and durable; prioritizes areas of particular importance for biodiversity; maintains ecological integrity and connectivity; upholds the rights, governance and contributions of Indigenous peoples and local communities; and safeguards these areas from extractive and other large-scale industrial activities incompatible with biodiversity conservation.**

Drawing on spatial analysis in the pantropics and case studies from around the world, this report finds that there is **alarming overlap between ongoing and planned extractive and large-scale industrial activities, with a focus on oil and gas, mining, and logging, and areas that are critical to biodiversity conservation, including protected and conserved areas (PCA), Key Biodiversity Areas (KBA), and Indigenous and community lands.**

Across the tropical countries in our analysis, more than 61.5 Mha of protected and conserved areas—roughly 2.5 times the size of the United Kingdom—are overlapped by oil and gas blocks, with an additional 42.7 Mha overlapped by mining concessions. These escalating industrial encroachments also threaten Indigenous and community-stewarded lands, compromising some of the world's most effective conservation systems, and biodiverse lands and waters.[1]

These findings expose a central risk for 30x30: the world is making progress toward area-based protection targets while failing to secure the ecosystems most important for biodiversity, climate stability, water and food security, and human well-being. Moreover, although the combined area under PCAs has increased, the current commitments of the Parties to the Convention on Biological Diversity (CBD) fall short, expected to reach 23% by 2030.[2]

The report also identifies promising pathways toward high-integrity implementation. Legal extractive exclusion policies, rights-based governance, and cross-sectoral policy alignment emerge as important mechanisms for closing integrity gaps. Critical levers for durable conservation outcomes include strong and enforceable standards that prevent incompatible extractive and large-scale industrial activity in protected and conserved areas, recognition and resourcing of Indigenous and community tenure, governance, and stewardship, and alignment of financial flows, economic incentives, and development of policies with conservation goals.

With less than four years remaining until 2030, the window to correct the course is narrowing. Achieving high-integrity 30x30 will require more than area-based gains: it will require ensuring that the world's most important biodiversity hotspots remain intact, connected, effectively governed, equitably managed, and safeguarded from industrial pressures that undermine conservation outcomes and a livable future for people and the planet.

Introduction

The Kunming-Montreal Global Biodiversity Framework (GBF) sets out an ambitious agenda to halt and reverse biodiversity loss by 2030. At its center, Target 3 commits Parties to effectively conserve and manage at least 30 percent of terrestrial, inland water, and coastal and marine areas by 2030, especially areas of particular importance for biodiversity. The implementation of the target must ensure high-quality conservation outcomes, including ecological representativeness, connectivity, and effective management of protected and conserved areas, as well as avoid the creation of "paper parks." Target 3 remains one of the largest coordinated conservation commitments in history, catalyzing unprecedented efforts from countries, practitioners and researchers, local and international NGOs, and conservation donors to expand PCAs worldwide. Nonetheless, evidence[3] indicates that differentiated, place-based approaches will be needed to safeguard biodiversity, especially in places that require conservation beyond 30%.

Despite these commitments, progress remains insufficient. The Convention on Biological Diversity's (CBD) 2026 global progress review highlights that the underlying drivers of biodiversity loss are not being adequately addressed.[4] Conservation efforts continue to operate against powerful economic incentives that drive environmental degradation. Indeed, the UN estimates that for every US$ 1 invested in nature protection, approximately US$ 30 is spent on activities that harm nature.[5]

Against this backdrop, **achieving Target 3 requires not only expanding PCA coverage but ensuring that these areas deliver meaningful conservation outcomes.** A quantitative increase alone will not produce effective conservation if PCAs are poorly located, ecologically disconnected, ineffectively managed, or remain exposed to industrial pressures that compromise their conservation objectives.

Extractive industries, large-scale industrial activities, and associated infrastructure provide an important lens through which to examine the challenge of protecting enough of the right places.[6] Mining, oil and gas development, logging, industrial agriculture, and other large-scale extractive activities can result in habitat loss, fragmentation, pollution, and broader ecological degradation. Because these activities are frequently permitted through government licensing, land-use planning, and development policy, their overlap with conservation priorities helps to reveal whether biodiversity commitments are failing to be translated into effective protection. **Yet the extent to which extractive and large-scale industrial pressures overlap with existing PCAs, as well as unprotected areas of particular importance for biodiversity, has received insufficient attention in both research and policy discussions surrounding 30x30 implementation.** While the need to ensure high-quality[7,8] and the effectiveness of area-based conservation has been widely recognized, this report seeks to address a specific gap by examining how extractive and large-scale industrial activities intersect with areas of biodiversity and conservation importance, and what these pressures mean for high-integrity 30x30 implementation.

This report examines the spatial relationship between extractive and large-scale industrial activities and areas of biodiversity or conservation importance, including protected areas (PA), Other Effective area-based Conservation Measures (OECMs), Key Biodiversity Areas,[9] Indigenous peoples (IP) and local communities' (LC) lands, and other ecologically important landscapes. It applies **high-integrity 30x30 implementation as a framework for assessing whether conservation efforts are achieving meaningful outcomes in the face of extractive pressures.** The report also explores promising pathways capable of strengthening high-integrity implementation under Target 3 and the wider GBF.

[9] To date only Bolivia, Canada, Colombia, DRC, Ecuador, Gabon, Mozambique, Peru, Philippines, Republic of Congo, South Africa, Uganda, and United Arab Emirates have completed comprehensive KBA assessments. As many as half of KBAs may be missing in remaining countries.

What do we mean by high-quality conservation and high-integrity 30x30 implementation?

High-quality conservation

Conservation that delivers meaningful and durable outcomes for biodiversity by maintaining or restoring ecological integrity and connectivity and ensuring that areas of global importance for biodiversity are protected from activities that undermine their conservation objectives. High-quality conservation recognizes and fully incorporates the rights, knowledge, governance, and contributions of Indigenous Peoples and local communities.

High-integrity 30x30 implementation

Implementation of Target 3 with high-quality conservation safeguarding PCAs from threats, particularly extractive and other incompatible large-scale industrial activities.



Illegal gold mining in the Munduruku Indigenous Territory, Pará, Brazil.
Image Credit: Vinicius Mendonça/Ibama via Wikimedia Commons (CC BY-SA 2.0)

ANALYTICAL FRAMEWORK

Analytical Framework

This report examines high-integrity implementation of Target 3 through two complementary lenses: (1) extractive and large-scale industrial activities that undermine effective biodiversity protection under 30x30, and (2) pathways that help address these pressures and move toward high-integrity 30x30 implementation.

1 Extractive and large-scale industrial threats

2 Pathways toward high-integrity 30x30 implementation

Drawing on geospatial analysis, publicly available datasets, scientific literature, government policies and partner expertise, the report combines regional mapping with illustrative case studies to assess industrial pressures and identify legal, policy and governance approaches that can support effective and durable conservation outcomes. The analysis focuses on extractive and large-scale industrial activities and associated infrastructure—including mining and oil and gas development—which can drive habitat loss, fragmentation, pollution and biodiversity loss. Because these pressures are shaped by government licensing, spatial planning, infrastructure investment and the activities of large industrial actors, they also represent important leverage points for conservation action. This also connects high-integrity Target 3 implementation to the wider GBF, including Target 1 and its emphasis on participatory, integrated and biodiversity-inclusive spatial planning and management processes to address land- and sea-use change.

The case studies were selected to illustrate broader patterns, rather than comprehensively assess all threats, based on biodiversity significance, documented industrial pressures, data availability, relevance to 30x30 governance and implementation, ecosystem diversity and geographic representation. The report focuses particularly on pantropical regions, where globally important biodiversity frequently intersects with development pressures, while examples from the Global North demonstrate that these tensions are global in scope.

The threat analysis considers three interrelated questions:

1. Whether protected and conserved areas are safeguarded from incompatible industrial pressures
2. Whether areas of particular importance for biodiversity receive effective protection
3. Whether Indigenous peoples' and local communities' rights, governance and stewardship are recognized and supported

The pathways analysis then considers how these challenges can be addressed through stronger legal safeguards and geographical exclusions, rights-based conservation and territorial governance, and the broader alignment of economic and development policies with biodiversity objectives. Together, the threat and pathways analyses identify key integrity gaps in the implementation of 30x30, and illustrate legal, policy and governance approaches that can help address them.

Despite growing recognition that extractive and large-scale industrial activities pose a fundamental threat to biodiversity conservation, the GBF's commitments have not translated into systematic monitoring of what "protection" from such activities means in practice. Focusing on illustrative case studies on the overlap of these threats with PCAs, KBAs, and IP and LC lands, as well as on pathways toward high-integrity 30x30 implementation, the report seeks to illustrate this implementation gap and contribute to ongoing discussions on how to strengthen the integrity of 30x30 implementation within the wider GBF.

INDUSTRIAL THREATS

Evidence-Based Insights on Large-Scale Industrial Threats to 30x30



The Urucu–Manaus gas pipeline under construction through the Amazon rainforest near Manaus, Brazil.
Image Credit: Per-Anders Pettersson via Getty Images



Illegal logging yards cleared inside the Pirititi Indigenous Territory, Roraima, Brazil.
Image Credit: Felipe Werneck/Ibama via Wikimedia Commons (CC BY-SA 2.0)

EVIDENCE-BASED INSIGHTS ON LARGE-SCALE INDUSTRIAL THREATS TO 30X30

The evidence presented in this report points to three key interrelated challenges for high-integrity 30x30 implementation. Across spatial analysis, scientific literature, policy assessments, and case studies, a consistent pattern emerges: expanding conservation coverage alone will not ensure biodiversity outcomes if PCAs remain exposed to large-scale industrial pressures, biodiversity-critical landscapes remain outside effective protection, or Indigenous Peoples' and local communities' territories face escalating external threats from extractive industries. These insights highlight the central integrity gaps that must be addressed to ensure 30x30 delivers durable conservation outcomes.

THREAT ASSESSMENT: KEY INSIGHTS

1

Extractive concessions and large-scale industrial activities are undermining the ecological outcomes of protected and conserved areas counted toward 30x30 progress.

2

Indigenous territories and community-managed lands, among the most biodiverse and intact landscapes on Earth, face escalating industrial pressures despite their critical contributions to biodiversity conservation.

3

Many areas of highest biodiversity importance, including Key Biodiversity Areas, high-integrity ecosystems, and intact landscapes and seascapes, remain outside effective protection, revealing a critical quality gap in quantitative conservation targets.

The Scale of the Threat: Mapping Threats to 30x30 Sites Across Tropical Countries

Across the tropics, which harbor some of the highest concentrations of biodiversity in the world, many of the most critical landscapes and seascapes are being targeted for extractive and large-scale industrial expansion. The pantropical analysis for this report focuses on four key regions where these dynamics are particularly acute: the Amazon, Central America, the Congo Region, and Southeast Asia. Together, these regions are home to exceptional levels of biodiversity representing the life support system of our planet. They also sustain the livelihoods, cultures, food systems, and well-being of hundreds of millions of people, while playing critical roles in regulating the global climate, supporting food and water security, and maintaining ecosystem services of global importance. Their exceptional biodiversity and the intensity of development pressures they face make these regions particularly important contexts for assessing the integrity of 30x30 implementation.

ACROSS THE AMAZON, CENTRAL AMERICA, THE CONGO BASIN AND SOUTHEAST ASIA

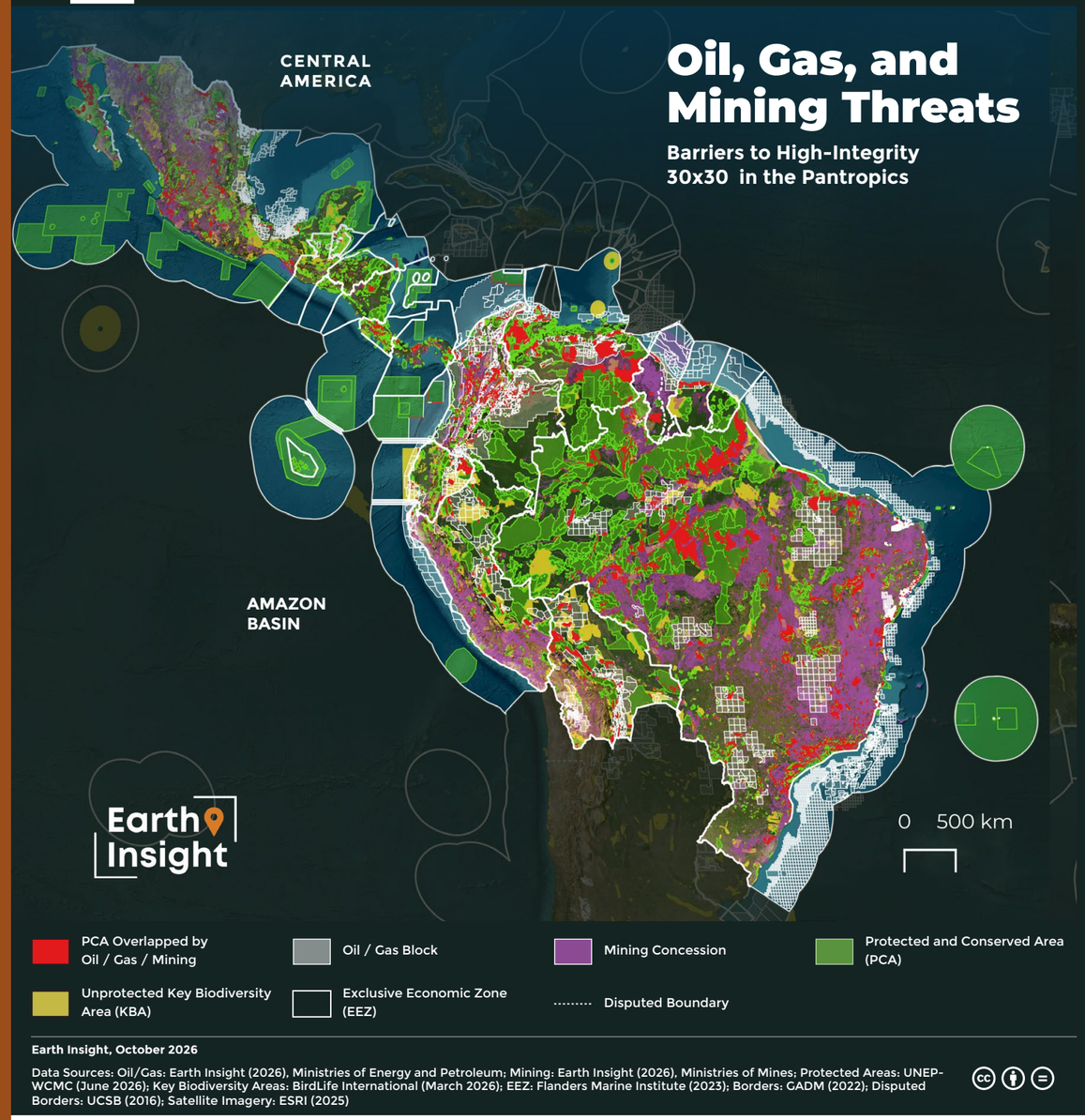
61.5 Mha oil and gas blocks overlap protected and conserved areas

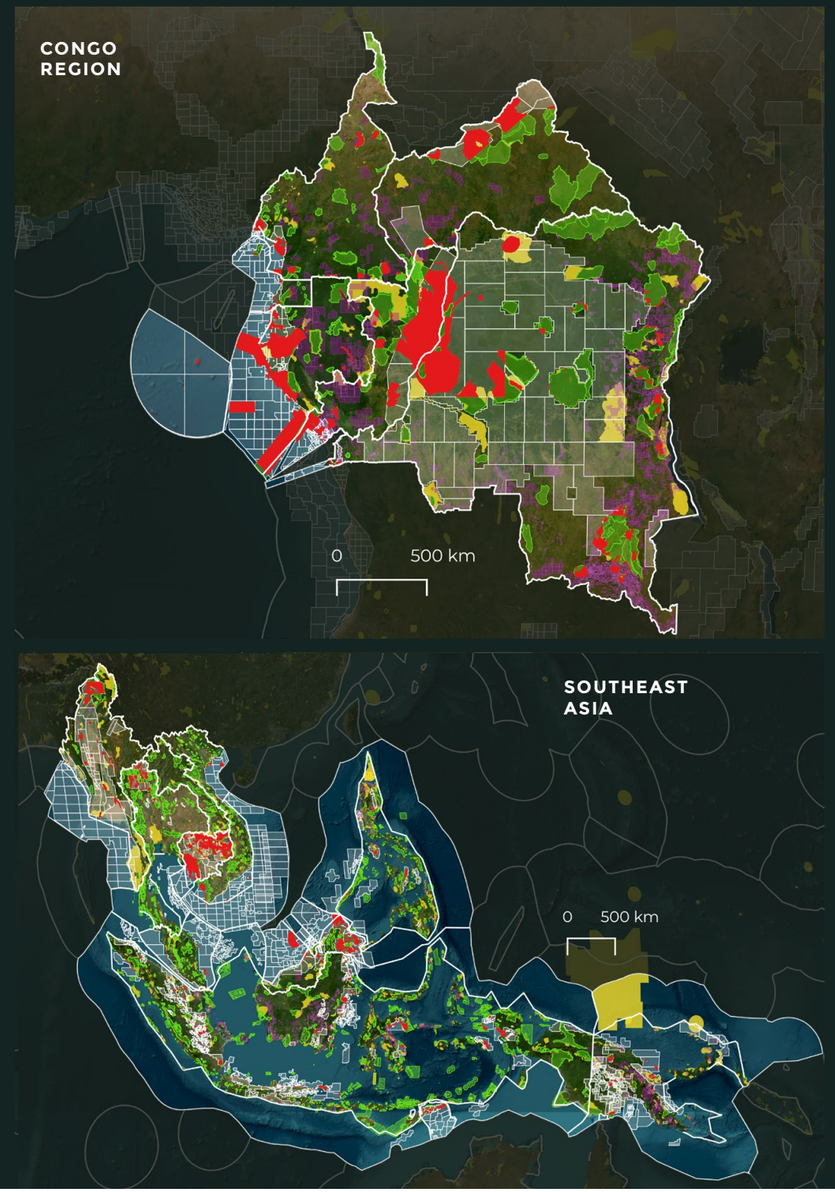
42.7 Mha of mining concessions overlap terrestrial protected and conserved areas



Communities around Conkouati-Douli National Park, Republic of the Congo, rely on its forests for timber, food and livelihoods.
Image Credit: Courtesy of © PNCD / Noé

THE SCALE OF THE THREAT





Terrestrial Coverage

583 Mha of terrestrial PCAs	**186 Mha** of unprotected KBAs
49 Mha or **8%** PCAs overlapped by oil / gas	**43 Mha** or **7%** PCAs overlapped by mining
36 Mha or **19%** unprotected KBAs overlapped by oil / gas	**28 Mha** or **15%** unprotected KBAs overlapped by mining

Marine Coverage

305 Mha of marine PCAs	**48 Mha** of unprotected KBAs
13 Mha or **4%** PCAs overlapped by oil / gas	**9 Mha** or **19%** unprotected KBAs overlapped by oil / gas

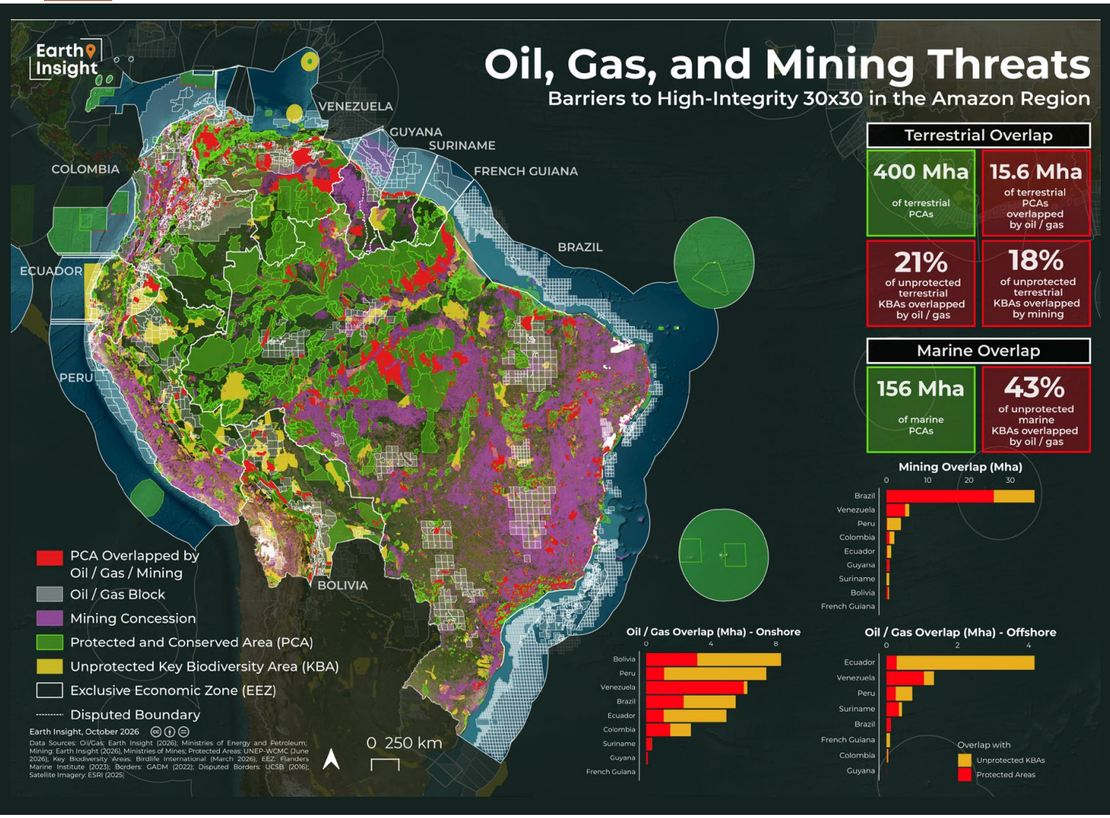
High-integrity 30x30 implementation requires that both the quantity and quality of PCAs be increased worldwide, especially in areas of particular significance for biodiversity. This means, in part, addressing acute threats to 30x30 sites including large-scale industrial activities. This report's pantropical analysis reveals the scale of this challenge: **across tropical countries spanning the Amazon, Central America, the Congo Basin, and Southeast Asia, over 61.5 Mha of protected and conserved areas—equivalent to roughly 2.5x the size of the United Kingdom—are overlapped by oil and gas blocks, while an additional 42.7 Mha of terrestrial protected and conserved areas are overlapped by mining blocks or concessions.**

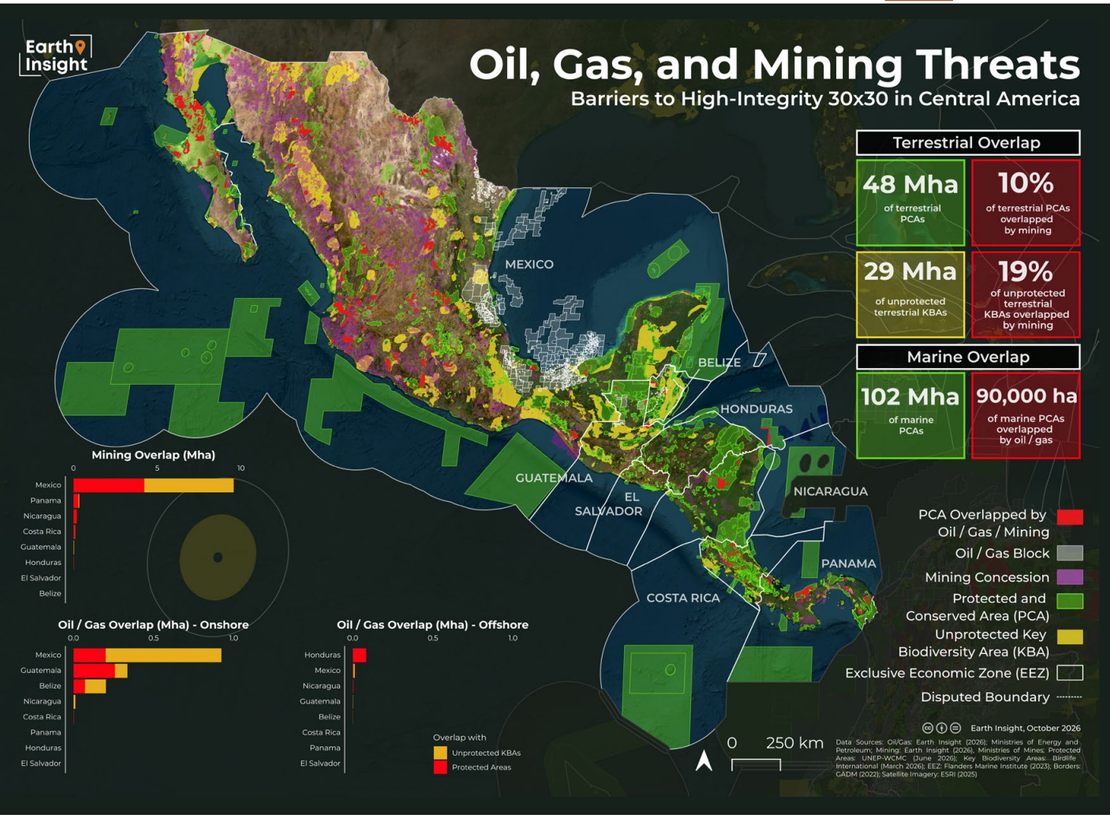
As seen in the maps, these overlaps are not isolated incidents, but a widespread and concerning pattern of contradiction across some of the planet's most important natural environments.

In many cases, blocks extend into areas that have been legally set aside for strict conservation, raising serious questions about the effectiveness, durability, and governance of existing protections. As these stark findings demonstrate, **there remains a critical gap that must be closed between formal protection and ecological and social outcomes.**

At the same time, areas already known to be important for biodiversity conservation, and therefore important for the expansion of protected and conserved areas under 30x30, remain without protection and exposed to industrial pressures. For example, 40% of the extent of identified terrestrial KBAs in the Amazon remain unprotected – as are 29% of these areas in the Congo Basin, and more than 50% of KBA extent in SE Asia and Central America.

THE SCALE OF THE THREAT



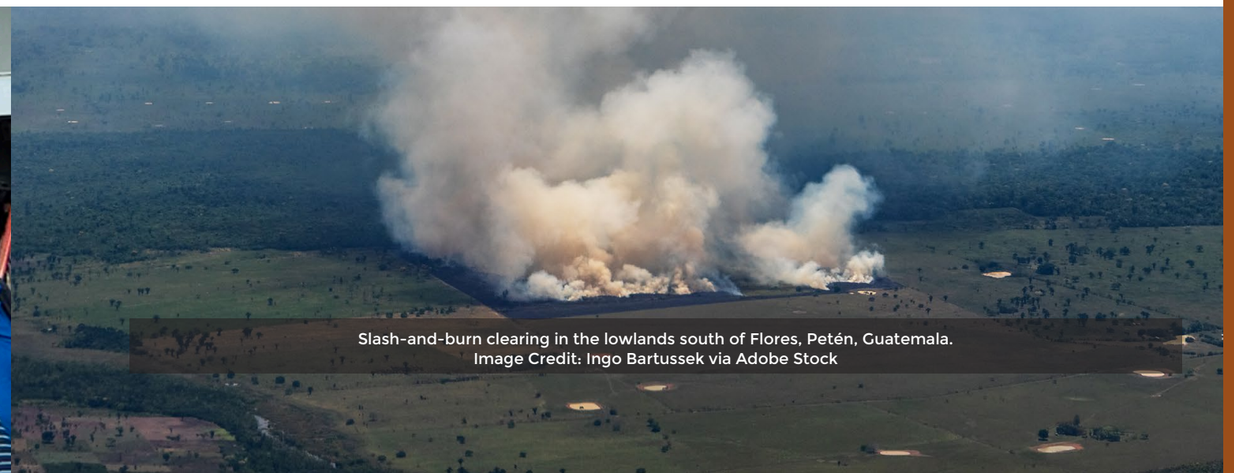


Importantly, these analyses likely represent a conservative estimate of risk. They do not capture the full suite of pressures threatening 30x30 sites, including industrial logging, large-scale agriculture, associated infrastructure corridors, hydropower development, overfishing, and other large-scale drivers of land and ocean degradation. Informal and illegal activities, including artisanal and small-scale mining, illegal logging, and wildlife poaching, are also excluded from this analysis but have major impacts on some of the world's most biodiverse areas.[10] These activities frequently accompany extractive development and infrastructure, amplifying habitat loss, carbon emissions, and social conflict.[11]

While 30x30 is a global target, not all ecosystems can be treated equally in terms of integrity requirements. Certain regions have ecological tipping point thresholds and play outsized roles in climate regulation, biodiversity stability, water regulation and security, and planetary resilience, and therefore require a higher level of ecological integrity and protection. For example, resolutions adopted by the International Union for Conservation of Nature (IUCN) recognize the Amazon[12-13] and Congo Basins[14] need to maintain higher proportions of intact ecosystems (above 74% intact forest), including by establishing geographical exclusion of all extractive and large-scale industrial activity in intact and high integrity areas to safeguard biodiversity and climate functions and avoid ecological tipping points.

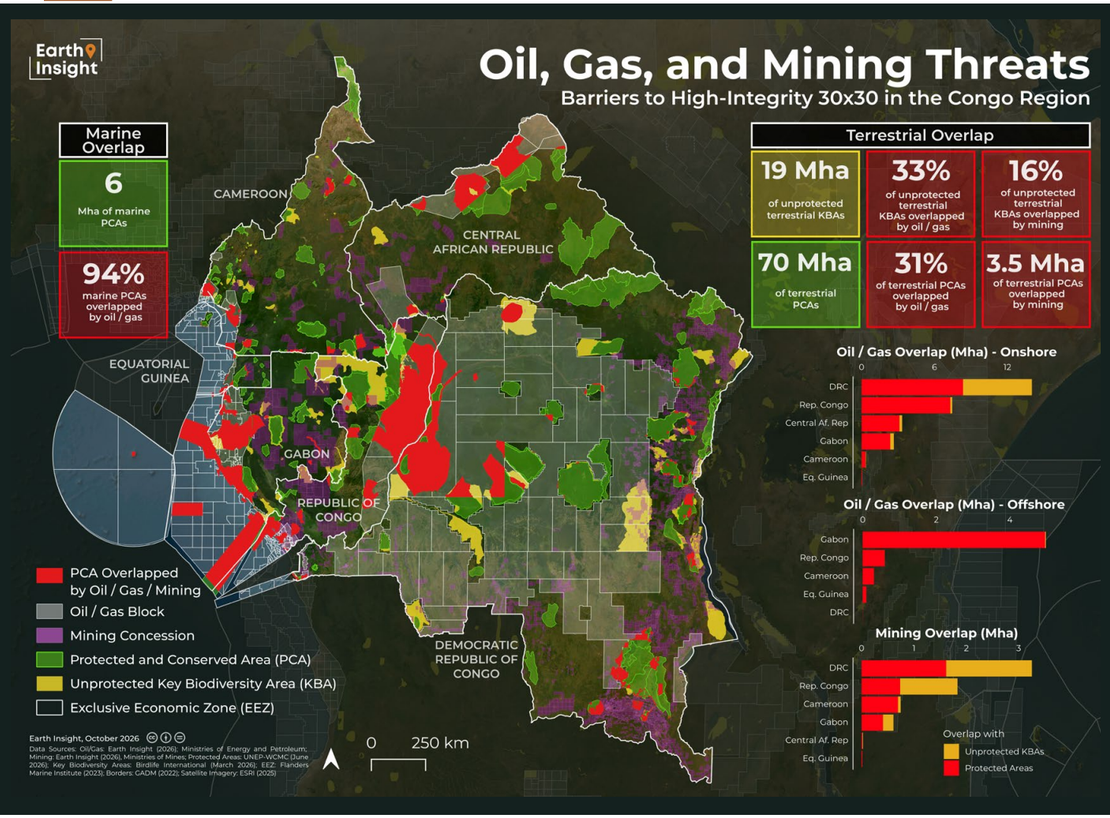


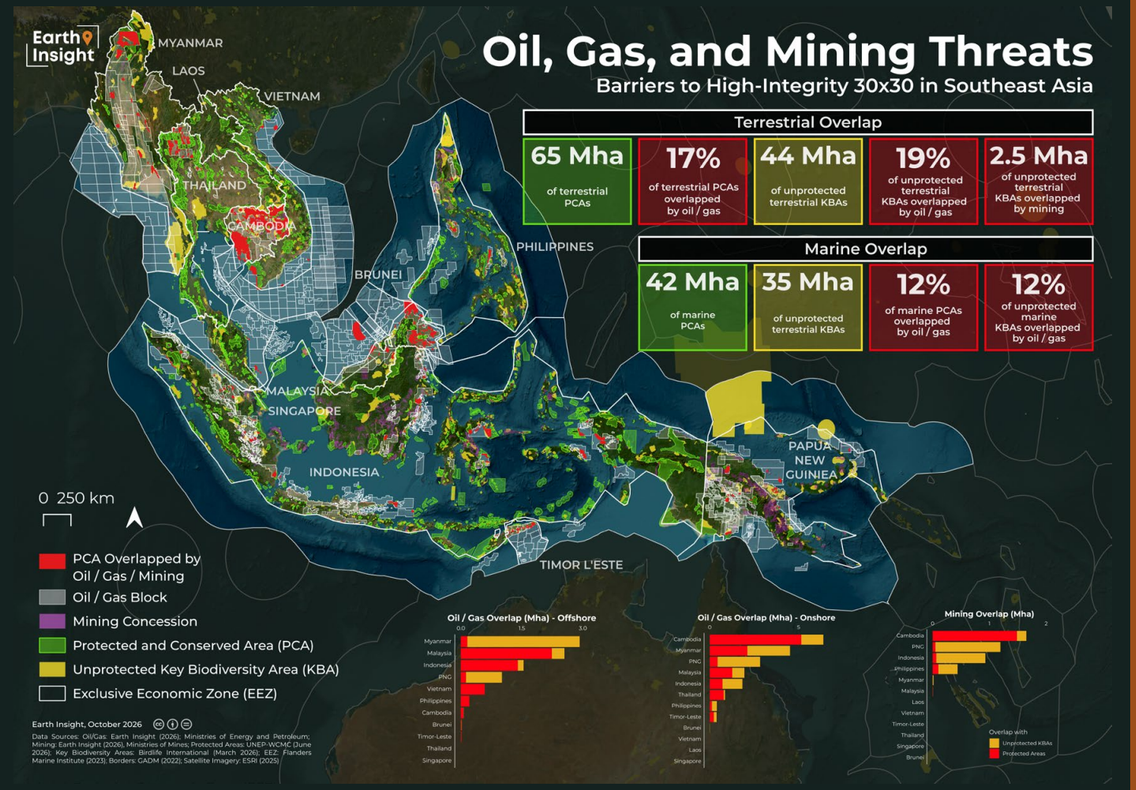
Members of the Waorani Nation and other Indigenous communities march in Puyo, Pastaza, Ecuador, three years after a national referendum voted to end oil extraction in Yasuní National Park, demanding that the government honour the result.
Image Credit: Earth Insight



Slash-and-burn clearing in the lowlands south of Flores, Petén, Guatemala.
Image Credit: Ingo Bartussek via Adobe Stock

THE SCALE OF THE THREAT





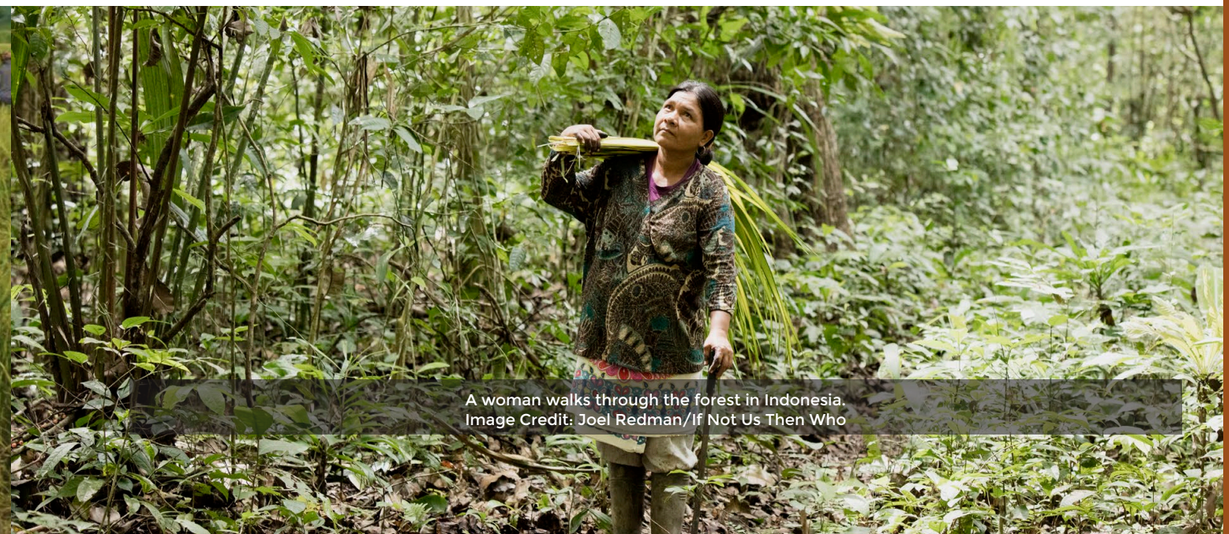
These differentiated expectations are essential to ensuring that progress toward 30x30 reflects not only the quantity of area under conservation, but whether protection is sufficiently strong and well-managed to maintain the ecological functions and values that make these areas globally important.

Moreover, scientists recognize that in many cases, **the goal of 30% coverage is only a baseline step toward much higher amounts of conservation needed to safeguard biodiversity,** and there is growing emphasis that humanity ultimately needs to protect much more of the planet. [15]

The urgency of these findings cannot be overstated. Areas identified as critical for conservation are also among the most important for climate stability, water security, food systems, and human rights. If extractive and large-scale industrial expansion continues to penetrate these sites and protection is ineffective or located outside of the most important ecosystems for conservation, the world risks meeting area-based protection targets while failing to secure the long-term conservation outcomes that the GBF was intended to achieve.



Farmers working rice fields in the Ruzizi Plain, Uvira Territory, South Kivu, Democratic Republic of the Congo, where rice is the main source of income for surrounding communities.
Image Credit: EdwinAlden.1995 via Wikimedia Commons (CC BY-SA 4.0)



A woman walks through the forest in Indonesia.
Image Credit: Joel Redman/If Not Us Then Who

1



Gas flaring at an offshore oil and gas platform.
Image Credit: via Envato Elements

Large-Scale Extractive and Industrial Pressures Undermine 30x30 Integrity

Extractive concessions and large-scale industrial activities are undermining the ecological outcomes of protected and conserved areas counted toward 30x30 progress.



An LNG powership, a floating storage and regasification unit, moored off Dakar near Gorée, Senegal, in November 2025.
Image Credit: SerFF79 via Adobe Stock

While biodiversity is threatened by multiple human-driven pressures, oil, gas, mining, logging, and other extractive and large-scale industrial activities are among the most destructive. These activities fragment habitats, drive deforestation and pollution, disrupt freshwater and marine systems, increase access through infrastructure like roads, pipelines, and ports, and often trigger cascading pressures such as agricultural expansion and settlement growth.[16] In coastal and offshore environments, hydrocarbon development and seabed extraction can damage coral reefs, mangroves, seagrass ecosystems, and other habitats that provide essential ecosystem services, while increasing risks of marine pollution.[17]

These tensions are becoming increasingly intense as governments struggle to reconcile biodiversity commitments with growing demand for energy, minerals, infrastructure, and economic growth. The result is a global race between the protection and exploitation of the natural environment. As recognized in IUCN Resolution 102, governments have a responsibility to keep conservation efforts from being undermined by other sectoral policies and activities that degrade biodiversity.[18] Areas identified as priorities for conservation are often the same that contain commercially valuable resources, creating direct conflicts over land, freshwater, and ocean use. This can lead to alarming contradictions to conservation goals, or to protected area downgrading, downsizing, and degazettement (PADDD+) by legally altering the status, shrinking the boundaries, or removing protections of established conservation areas.

Both areas already designated as protected and conserved areas and unprotected areas of particular importance for biodiversity including KBAs, high-integrity forest landscapes, and Indigenous territories, are increasingly caught in the crosshairs of these pressures. **High-integrity 30x30 implementation requires effective, high-quality conservation that excludes activities that compromise biodiversity and ecological integrity. Where such overlaps persist, the integrity of 30x30 is undermined.** The case studies below offer a glimpse into what is at stake and demonstrate how persistent extractive pressures undermine the broader goals of the GBF.



The Okvau open-pit gold mine inside Phnom Prich Wildlife Sanctuary, Cambodia, in 2016 (left) and 2026 (right).
Image Credit: Planet Labs (left) and Esri Satellite (right)



SENEGAL

27.5%
of Senegal's land designated as protected

83%
of onshore and offshore territory covered by oil and gas blocks

2%
of Senegal's ocean currently protected



Oyster harvester in the Saloum Delta mangroves, Senegal.
Image Credit: Julien Saison via Wikimedia Commons (CC BY-SA 4.0)

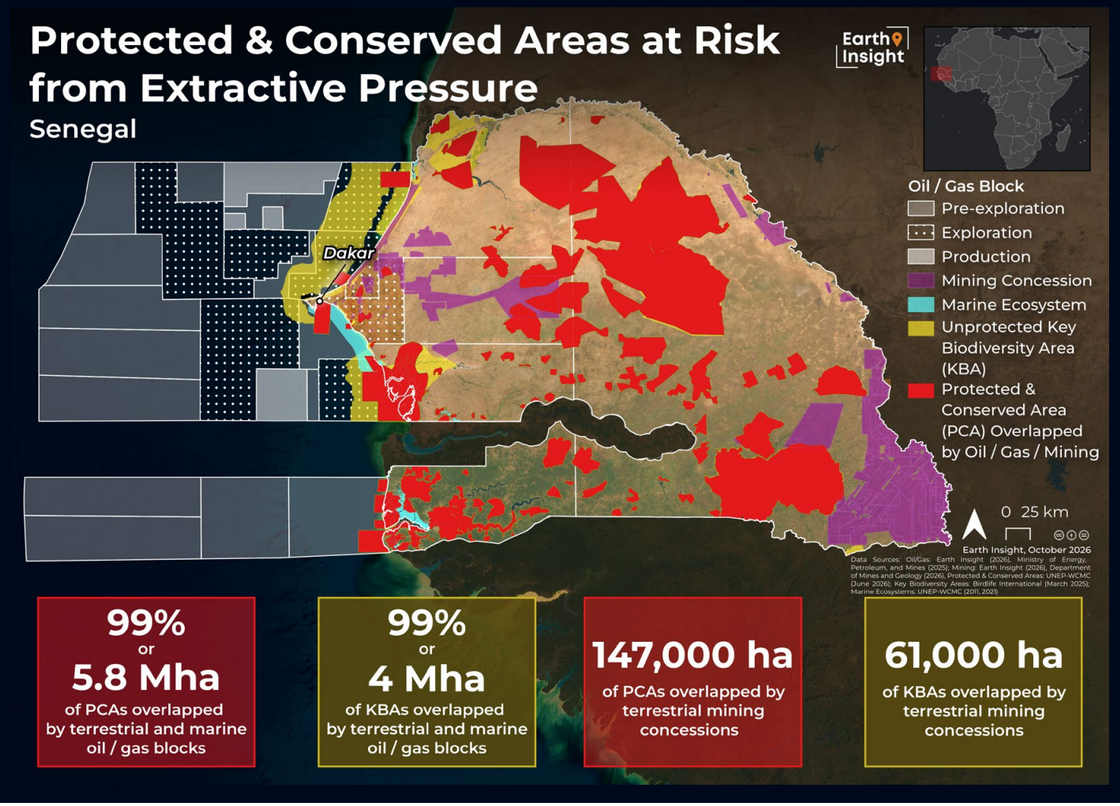
Case study: Beyond Coverage in Senegal's Protected Area Network

At first glance, Senegal seems to be making strong progress toward GBF Target 3. As of August 2026, Senegal has designated approximately 27.5% of its terrestrial area as protected, covering over 5.3 Mha. Compared to many countries that remain far from the 30% target, this represents a significant achievement. However, quantitative metrics alone do not capture the full picture of conservation progress,[19] and high-integrity 30x30 implementation demands not only expanding protected area coverage, but also ensuring that PCAs are effectively managed and safeguarded from activities that undermine their ability to truly protect biodiversity.

Although Senegal reports substantial progress toward terrestrial conservation targets, the degree to which these areas are truly protected from threats remains in question. For example, oil and gas blocks—areas designated by governments for oil and gas activities, with the potential for development if commercially viable discoveries are made—extend across the vast majority of the country, with **83%, or 31 Mha, of Senegal's total onshore and offshore territory covered by oil and gas blocks, including 99% of its protected areas,** indicating that the government is open to the expansion of oil and gas activities. Another 147,000+ ha of mining concessions overlap with terrestrial protected areas, further calling into question the effectiveness of these conservation efforts. This substantial industrial overlap is even more alarming when considering the global significance of Senegal's biodiversity.[20]

Senegal's immense biodiversity values are at the heart of what is being threatened by extractive industry when overlap persists. The result is a striking mismatch of priorities being presented as progress. On paper, Senegal may be approaching the 30% coverage target but the most critical areas for biodiversity remain exposed to industrial development. Even beyond formally protected areas, the picture is stark: a full **99% of Key Biodiversity Areas currently identified[21] in Senegal are also overlapped by oil and gas blocks—the very places where future conservation efforts should be prioritized.** Taking extractive activity off the table in protected areas and other high-biodiversity sites is a non-negotiable step toward ensuring that 30x30 delivers high-integrity, rather than simply quantitative, conservation outcomes.

Unfortunately, the outlook is no better in the marine realm in Senegal.

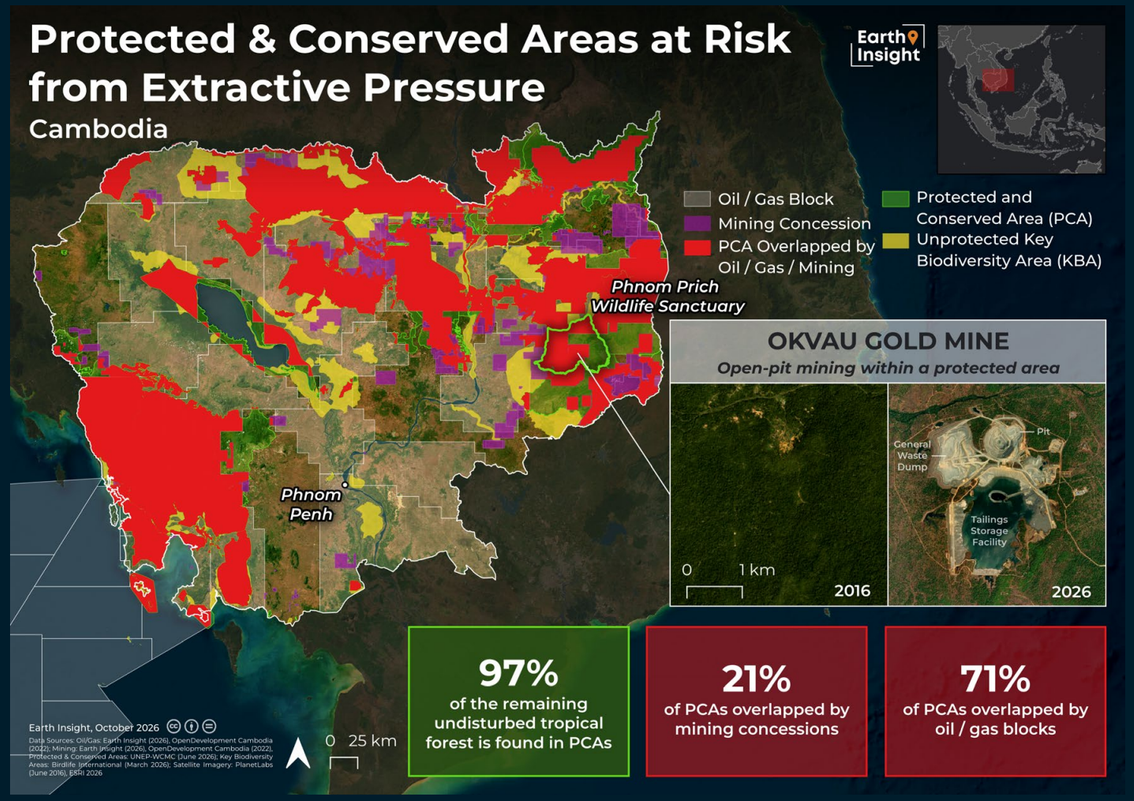


Despite the country's extensive Atlantic coastline and globally important marine ecosystems, only 2% of Senegal's ocean is currently protected and marine KBAs remain largely unidentified. This alarming lack of progress places the country well behind many coastal nations in marine conservation and raises questions about the expansion of offshore hydrocarbon development with marine protection objectives. Senegal's rapidly growing offshore oil and gas sector has become a central pillar of the country's economic development strategy,[22] creating increasing pressure on marine ecosystems at a time when stronger ocean conservation measures are urgently needed. With little formal protection in the ocean, **99% of Senegal's marine territory is under threat from oil and gas blocks, with 4.6 Mha subject to active production and exploration blocks.** Coastal marine protected areas, including Kayar and Gorée MPAs are at risk of oil pollution from offshore extraction and coastal infrastructure.[23] As the host of the upcoming Sixth International Marine Protected Areas Congress (IMPAC6) in 2027, Senegal has an important opportunity to demonstrate leadership by strengthening the ambition and integrity of its marine protected area network.

[21] Senegal has established a KBA National Coordination Group and plans to update its KBA network. To date, most KBA sites in Senegal are IBAS and therefore only identified for birds



Mangrove forest in the Saloum Delta National Park near Joal-Fadiouth, Senegal.
Image Credit: Curioso.Photography via Adobe Stock



Case study: From Threats to the Reality of Extractive Development in Cambodia's Protected Areas

The presence of large-scale industrial concessions or extractive claims within protected and conserved areas does not always immediately translate into ecological degradation. In some cases, concessions remain undeveloped due to economic, political, regulatory, or logistical barriers, allowing ecosystems to remain intact despite the presence of an imminent legal or administrative threat, though the impact of exploration activities is too often underestimated.[24] However, treating concessions as merely threats on paper risks overlooking the **significant and potentially irreversible impacts that occur when these industrial threats are explored and exploited within protected areas.**


Forest cleared and burned illegally near Sen Monorom, Mondulkiri Province, Cambodia. Image Credit: Christian Pirkl via Wikimedia Commons (CC BY-SA 4.0)

In Cambodia, the success of the country's post-conflict economic transition has often come at the expense of conservation, as industrial activities and foreign investment opportunities are too often prioritized over biodiversity protection, sustainable natural resource management, and rural livelihoods.[25] Evidence shows that when large-scale industrial activities are realized within conservation areas and without adequate safeguards, they can fundamentally alter landscapes, degrade and pollute ecosystems, and undermine the biodiversity objectives that protected and conserved areas are established to achieve.

One such case is unfolding in Phnom Prich Wildlife Sanctuary in southwestern Cambodia, where the transition from a "potential threat" to active ecological degradation shows the consequences of allowing extractive threats to simmer. Designated as an IUCN Category IV protected area, Phnom Prich is part of Cambodia's Eastern Plains Landscape, one of Southeast Asia's most important remaining areas for biodiversity conservation. The sanctuary supports populations of globally threatened species including Asian elephants, banteng, and several species of large carnivores, while also contributing to regional ecosystem connectivity and watershed protection.

Despite the clear conservation objectives of the wildlife sanctuary, **19,000 ha within the sanctuary were incorporated into a mining concession allocated in 2018,** creating a pathway for industrial development within the protected area. The Okvau open-pit gold mine subsequently began operating entirely within the conservation zone of the sanctuary, resulting in forest clearing and mining infrastructure building, including a highly toxic tailings pond, and settlement relocation,[26] in the heart of the protected area. Located near the headwaters of the Mekong River system, the mine has already caused ecological damage during its development, while local and Indigenous communities report negative impacts on their livelihoods and the ecosystems on which they depend[27] – despite the local employment, community services, and restoration programs promoted by the company.[28] Since 2010, Phnom Prich has **lost nearly 10,000 ha of forest,** underscoring the cumulative pressures facing the sanctuary.

The ecological consequences of industrial concessions are not hypothetical. While not every concession results in the landscape change triggered by extraction, the cumulative ecological impacts of exploration must not be neglected. the presence of industrial threats within 30x30 sites creates a pathway through which conservation commitments can be undermined. In Cambodia's case, **97% of the remaining undisturbed tropical forest in Cambodia is found in protected areas, yet 21% of PAs are threatened by mining concessions and 71% by oil and gas.** These alarming figures signal a need to increase the quality of conservation and to guarantee that protected and conserved areas deliver lasting biodiversity outcomes which requires moving beyond simply tracking spatial coverage toward preventing industrial activities.



CAMBODIA

19,000 ha

of Phnom Prich Wildlife Sanctuary allocated to a mining concession in 2018

~10,000 ha

of forest lost in Phnom Prich since 2010


Community member with a rescued giant ibis, Preah Vihear, Cambodia. Image Credit: Luke Groskin/WCS via USAID

PROTECTED AND CONSERVED AREAS AT RISK FROM EXTRACTIVE PRESSURE

2



Guna Indigenous women march outside the National Assembly against a copper mine project, Panama.
Image Credit: AP Photo/Arnulfo Franco

Indigenous and Community Stewardship Faces Industrial Pressures that Threaten Biodiversity Goals

Indigenous territories and community-managed lands, among the most biodiverse and intact landscapes on Earth, face escalating industrial pressures despite their critical contributions to biodiversity conservation.

The future of the world's ecological systems is inseparable from the rights, governance, and stewardship of Indigenous peoples and local communities, whose territories hold immense cultural and biodiversity significance. IPs and LCs are therefore essential partners in the pursuit of high-integrity 30x30, and Indigenous-led and co-managed lands and waters must play a central role in the new conservation paradigm rooted in rights-based conservation.

Thanks to the hard-fought efforts of Indigenous peoples and NGOs who advocated for recognition of the rights and respect for Indigenous territories in Target 3 and beyond, the GBF creates important space for conservation beyond conventional, state-led protected areas.[29] OECMs, which can include Indigenous and community-led conservation approaches such as Indigenous Community Conserved Areas (ICCAs), offer an important pathway for recognizing and supporting conservation that is grounded in Indigenous and local governance. Yet there remains a risk that exclusionary protected areas will remain the default option in pursuit of 30x30. Indigenous territories, and community lands and waters must therefore be recognized as a distinct pathway to conservation in their own right, with recognition led by the governing authorities of their territories.[30] The risks of exclusion, marginalization, and tenure uncertainty are compounded by continued extractive and large-scale industrial pressures that seek to exploit the resources contained within Indigenous territories including oil, gas, timber, land, and minerals. For example, previous research has shown that in the Amazon Basin Region, 31 Mha of Indigenous peoples and local communities' lands are under oil and gas blocks; and in the Congo Region, 38% (2.6 Mha) of community forests are threatened by oil and gas, while 42% (2.9 Mha) are threatened by mining.[31] These patterns are also observed in Central America and Indonesia, and are compounded by the encroachment of agriculture, land grabbing, and illicit activities into Indigenous territories and community lands.

The ongoing expansion of extractive blocks and concessions into these lands and waters without the free, prior, and informed consent (FPIC) of Indigenous peoples, or through only nominal FPIC processes,[32] constitutes a deep threat to both Indigenous rights and biodiversity.[33] Moreover, where these activities degrade ecosystems, fragment habitats, or compromise ecological integrity, they directly undermine the objectives of 30x30. **Extractive activities including oil and gas, mining, and industrial forestry are fundamentally incompatible with areas of high-biodiversity value and infringe on the rights of communities in Indigenous territories where FPIC principles have not been upheld.**

Therefore, Indigenous organizations and local communities are increasingly demanding direct, flexible climate and nature finance for local stewards to engage in Indigenous and community-led conservation efforts. Recognizing land rights and strengthening tenure, alongside directing resources to Indigenous and community-led conservation, will be critical to enabling IPs and LCs to exercise their right to self-determination within their territories, to defend their territories from extractive encroachment, support IPs and LCs to manage or co-manage conservation areas, and sustain the ecosystems that underpin global biodiversity goals.

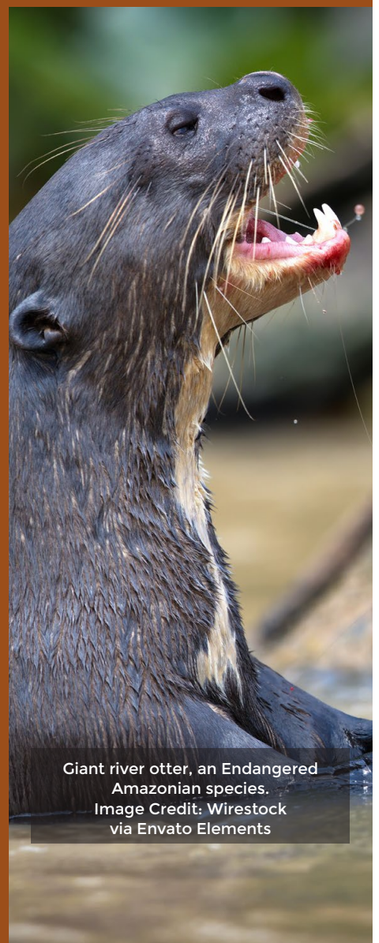
High-integrity 30x30 implementation requires that Indigenous peoples' and local communities' lands, territories, and waters are fully recognized as essential contributions to conservation, while ensuring that their tenure, territorial sovereignty, governance, and rights are respected and upheld and that conservation outcomes are not undermined by extractive and large-scale industrial pressures. Achieving Target 3 therefore requires protecting and supporting the rights of IPs and LCs—ensuring conservation does not displace or dispossess the people who steward nature, investing resources directly in community-led conservation, defending space for IP and LC leaders at decision-making tables, and holding the line against industrial development that undermines the biodiversity values that make these territories critical to 30x30.



PERU

21%

of territorial PIACI reserves overlapped by oil and gas blocks



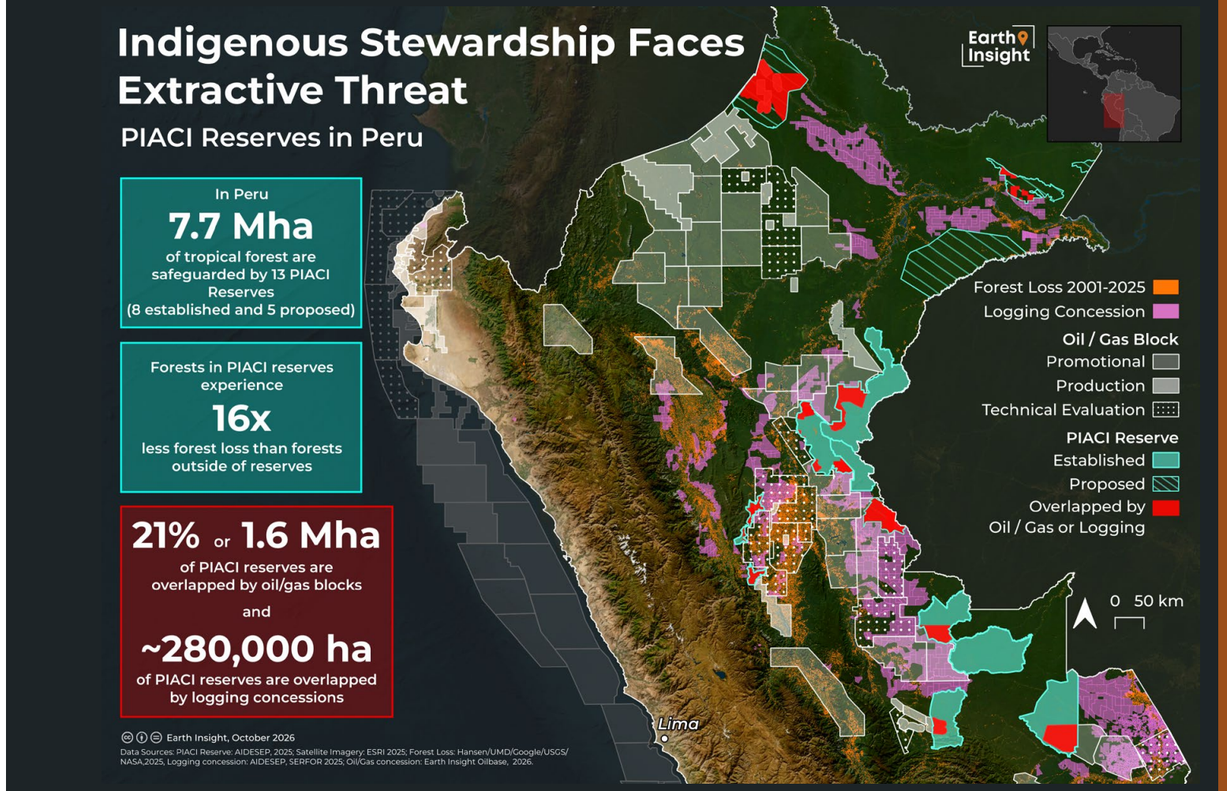
Giant river otter, an Endangered Amazonian species.
Image Credit: Wirestock via Envato Elements

Case study: Industrial and Extractive Encroachment in Indigenous Territories in Peru

The Peruvian Amazon represents a critical landscape for Indigenous rights and global biodiversity conservation and climate stability, containing vast areas of intact forest that support extraordinary species diversity while sustaining the cultural, spiritual, and physical wellbeing of diverse Indigenous Peoples. But these landscapes are increasingly shaped by competing economic interests, with oil and gas development, mining, logging, and infrastructure expansion creating growing pressures on both ecosystems and Indigenous communities. While extractive concessions are often drawn around the formal boundaries of protected areas, creating the appearance that industrial activities are separate from conservation designations, these boundaries can create a false sense of security. In reality, industrial activities beyond protected area boundaries can generate spillover effects that compromise ecological integrity, threaten Indigenous wellbeing and livelihoods, lead to human rights violations, and undermine the effective conservation outcomes required under Target 3. And in some cases, these pressures extend beyond indirect impacts and involve direct overlap between extractive interests and protected and conserved areas.

These extractive pressures are particularly evident in the territories of Indigenous Peoples Living in Voluntary Isolation and Initial Contact (abbreviated as “PIACI,” the Spanish acronym), where formally recognized and proposed Indigenous territorial reserves being counted toward 30x30 continue to face overlapping extractive pressures. Peru has formally established 8 territorial PIACI reserves and recognized 5 additional proposed reserves, encompassing the territories of at least 7,500 Indigenous Peoples living in voluntary isolation and initial contact and safeguarding some of the most intact Amazonian ecosystems. These reserves represent some of Peru’s most effective conservation areas: forests within territorial PIACI reserves experience approximately **16 times less forest loss than forests outside of reserves,** demonstrating the effectiveness of Indigenous territorial protections in maintaining biodiversity. However, if Indigenous territories are exposed to large-scale industrial activities, extractive concessions, or other external pressures, the ecological and social conditions that enable these conservation outcomes can quickly be compromised – in addition to the livelihoods and survival of PIACI.

Approximately **7.7 million hectares of tropical forests in Peru are currently stewarded through these territorial PIACI Reserves,** representing globally significant contributions to biodiversity conservation and climate mitigation.



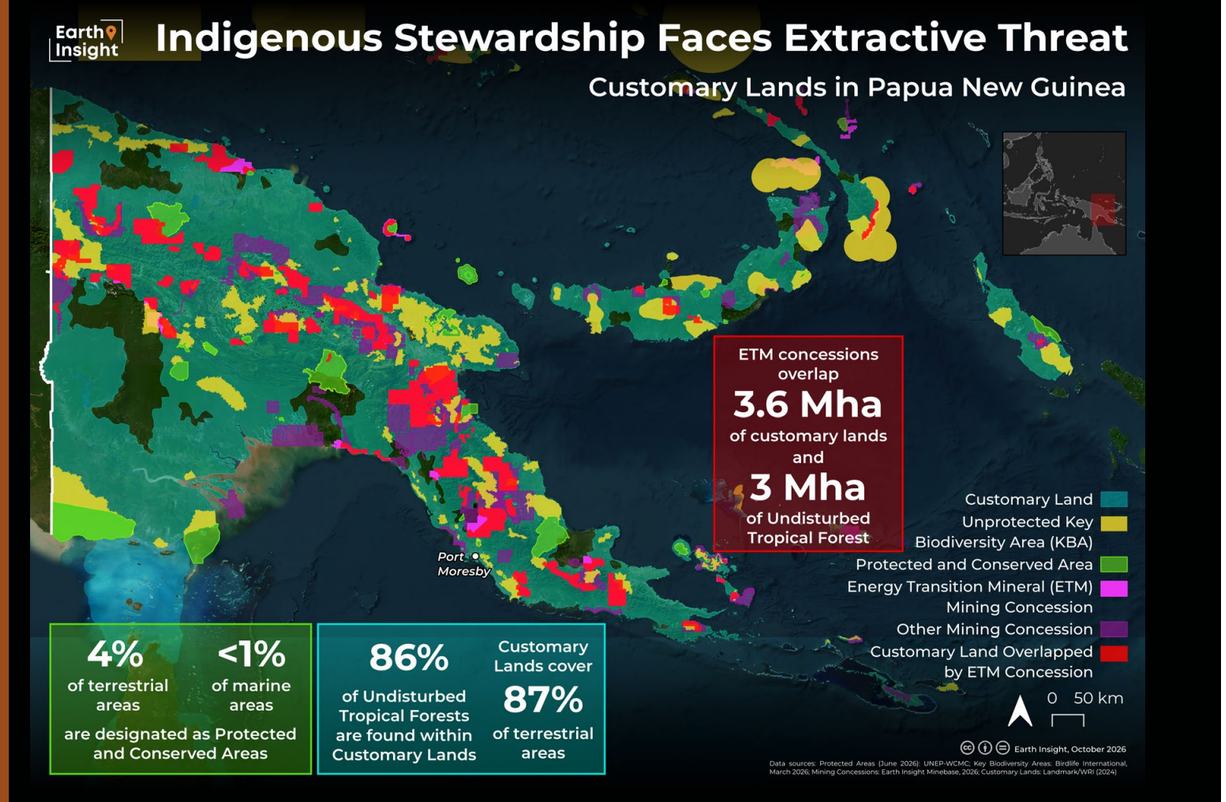
Yet despite their ecological importance and legal protections, many of these territories remain vulnerable to overlapping extractive pressures– **21% or 1.6 Mha of territorial PIACI reserves are overlapped by oil and gas blocks,** with an additional 280,000 hectares overlapped by logging concessions. These large-scale extractive activities and associated infrastructure threaten to undermine the ecosystems and Indigenous governance systems that have historically maintained these landscapes.

Indigenous stewardship is a matter of social equity and human rights, and also a core concern for biodiversity conservation. While Indigenous territories represent some of the most effective conservation systems on Earth, their ability to deliver lasting biodiversity outcomes depends on recognizing and upholding Indigenous Peoples’ rights, authority, governance, and stewardship, while ensuring that governments fulfill their responsibility to provide direct funding and effective safeguards against large-scale industrial activities.



Corroded Block 192 oil pipelines in Achuar territory, Loreto, Peru, site of a 2017 spill, near the proposed Napo Tigre PIACI Reserve.
Image Credit: Kathia Carrillo via Wikimedia Commons (CC BY-SA 4.0)

INDIGENOUS STEWARDSHIP FACES EXTRACTIVE THREAT



Case study: Papua New Guinea's Energy Transition Minerals and the Need for a Just Transition in the Face of 30x30

In Papua New Guinea (PNG), biodiversity conservation cannot be separated from Indigenous Peoples, whose customary lands and waters encompass much of the country's remaining natural ecosystems. The country occupies the eastern half of the island of New Guinea, which contains the third largest expanse of tropical rainforest on earth, after only the Amazon and Congo basins. The flora and fauna of PNG remain understudied, but the country is already known to harbor an extraordinary number of endemic species, in addition to more than 800 languages and hundreds of distinct cultural groups that make PNG one of the most bio-culturally diverse places on Earth.



The Porgera gold mine and its waste dumps in Enga Province, Papua New Guinea, October 2023.
Source: Copernicus Sentinel-2 data (2023)

PNG's forest and coastal ecosystems are sustained in large part through Indigenous stewardship. **Customary lands cover at least 87% of PNG, and 86% of undisturbed tropical forests in PNG are found within customary lands.** With customary land recognized by the National Constitution as being owned and managed by local communities, according to their traditional customs, Indigenous peoples will need to play a central role in the formal expansion of conservation areas in the country to meet the goals of the GBF, including Target 3.[34] As of yet, **only 4% of terrestrial and less than 1% of offshore areas in PNG are designated as protected areas,** despite the fact that more than 7 million hectares of land and 25 million hectares of ocean have been identified as KBAs. This substantial gap between areas of biodiversity importance and areas receiving formal protection will need to be closed–but the process of how conservation happens will matter just as much as the formal protections being put in place. With most biodiversity in the country currently under Indigenous stewardship, robust FPIC protocols, direct funding for Indigenous-led or co-managed conservation, and meaningful Indigenous agency must be at the heart of conservation planning.

With significant gaps in the protected areas network in PNG, conservation action is urgently needed, as the country's lands and waters are increasingly being targeted for extraction. **Mining concessions already cover 7.3 Mha in PNG, or 16% of the country's terrestrial area. Concessions also overlap with 17% of identified KBAs,** and are likely to overlap with KBAs that remain to be identified using the KBA standard.[35] Energy transition minerals (ETMs) represent an important and increasing share of this footprint, with over half (4 Mha) of mining concessions containing ETMs, creating a difficult tension: the same Indigenous territories essential to achieving global biodiversity goals are being positioned as sources of the minerals needed to realize global climate goals.

Ultimately, a just energy transition must be accompanied by a **rights-based and Indigenous-led approach to both conservation and mineral development.** Conservation targets cannot be pushed forward in isolation from the extractive pressures threatening the landscapes and seascapes they seek to protect, nor can the energy transition be pursued by undermining the communities whose stewardship has maintained many of these ecosystems. Achieving high-integrity 30x30 in PNG will require conservation that recognizes customary tenure, prioritizes areas of particular importance for biodiversity, and ensures that Indigenous Peoples and local communities have meaningful decision-making power over conservation and extraction on their lands and water. Removing or excluding extractive concessions from areas of exceptional biodiversity and cultural importance will be a critical piece of the puzzle, ensuring that new conservation commitments translate into durable outcomes.



PAPUA NEW GUINEA

7.3 Mha

under mining concessions, 16% of PNG's land area

17%

of identified KBAs overlapped by mining concessions



Women weaving skirts from dried grasses at Tari, in Huli country, Southern Highlands Province, Papua New Guinea.
Image Credit: Rita Willaert via Flickr (CC BY-NC-SA 2.0)

INDIGENOUS STEWARDSHIP FACES EXTRACTIVE THREAT

3

Baboons and a road construction truck in Murchison Falls National Park in Uganda; roads in the park were paved, raising concerns including loss of habitat for arboreal wildlife as well as increased road accidents and increased air and noise pollution, which could impact baboons and other wildlife in the park.
Image Credit: LoneExplorer, Uganda

Critical Biodiversity Remains Unprotected and at Risk

Many areas of highest biodiversity importance, including Key Biodiversity Areas, high-integrity ecosystems, and intact landscapes, remain outside effective protection, revealing a critical quality gap in conservation targets.

While countries are making incremental progress toward the quantitative component of 30x30, a substantial share of the areas of the highest importance for biodiversity remain unprotected. This creates a significant quality gap in 30x30 implementation, leaving globally important sites for species and ecosystems exposed to many of the pressures that conservation targets seek to protect against. Intact ecosystems can provide disproportionate benefits for biodiversity, ecological connectivity, climate change mitigation, and ecosystem functioning, while also serving as territories of life for Indigenous peoples and local communities. But once degraded, these ecological and cultural values can be difficult, and in some cases impossible, to restore.[36] **Preventing fragmentation and ecosystem destruction before they occur is essential to safeguarding biodiversity and the people who depend on these ecosystems.** Target 3 therefore must be implemented in close consultation with Target 1 of the GBF, which underscores the importance of biodiversity-inclusive spatial planning and management, their role in identifying areas of particular importance to biodiversity, and informing decisions about where incompatible industrial development should be avoided before degradation occurs.

Closing the quality gap in 30x30 implementation requires shifting attention from how much land, inland water, and ocean is counted toward what is being conserved, where, and whether protection is effective. High-integrity 30x30 implementation must prioritize the areas that are most important for biodiversity, strengthen protection where these areas are currently vulnerable, include Indigenous peoples and local communities in decision-making, and ensure that conservation designations provide meaningful protection from activities that threaten biodiversity. The following case studies illustrate the scale of this challenge across different regions and ecosystems, showing how globally important biodiversity remains exposed even as countries advance toward quantitative conservation targets.



A community forest meeting in the Democratic Republic of the Congo.
Image Credit: Courtesy of RFUK

Case study: The Need for Biodiversity Protection Amid Extractive Pressures in Western Australia

Australia is a country whose wealth is closely tied to extractive industries, with mining, oil, and gas playing a significant role in the country's economic development. This is especially true in the state of Western Australia (WA), where the resources sector includes extensive mining and petroleum development that plays a major role in the state's economy.[37] WA also contains globally important biodiversity hotspots, including in the semi-arid savanna of the Kimberley, the Southwest Australian Floristic Region, and extensive coral reef and marine ecosystems along its northern coast. With significant biodiversity found nowhere else on earth, protecting these landscapes is important not only for Australia's natural environment, but for global conservation efforts.

These competing demands present an ongoing challenge for land-use and marine planning, especially where areas of high biodiversity significance overlap with valuable mineral and petroleum resources targeted for extraction. Opportunities for resource extraction may discourage the designation of protected areas in some of the most important areas for biodiversity conservation, including Key Biodiversity Areas. While the KBA network in Australia remains incomplete, our findings show that **30% of the extent of identified terrestrial KBAs remain unprotected, while 22% of these—equivalent to approximately 298,000 ha of areas critical for biodiversity—are overlapped by oil and gas blocks currently in active exploration or production.** In another effort to identify priority landscapes to inform 30x30 planning, the Department of Climate Change, Energy, the Environment, and Water (DCCEEW) mapped areas that have both high-biodiversity and ecological representativeness. Our spatial analysis found that mining concessions overlap 14.6 Mha, or 26%, of high biodiversity and ecological representativeness areas in Western Australia.

The gap in protection from harmful extractive activity is similarly present in Aboriginal lands in Western Australia. 28% of exclusive and non-exclusive native titles, where land claims are recognized but the right to consent is not guaranteed,[38] are overlapped by mining concessions.

A strong example of the risk of this overlap and gap in coverage is found at Scott Reef, one of the most spectacular and important coral reefs in Australian waters. Located 270 km off the Kimberley Coast, Scott Reef is home to more than 1,000 unique species. The biodiversity at Scott Reef has earned global recognition, and part of the reef is legally protected through a marine nature reserve. However, much of the reef remains vulnerable to threats and outside of effective protection. For example, major fossil fuel companies are proposing to drill gas in and around the Scott Reef's world-class coral ecosystem, risking hydrocarbon release that could alter water and sediment quality, damage habitats, and cause fauna injury or mortality.[39] Given the sensitivity of coral reef ecosystems, such impacts could be severe and irreversible.



WESTERN AUSTRALIA

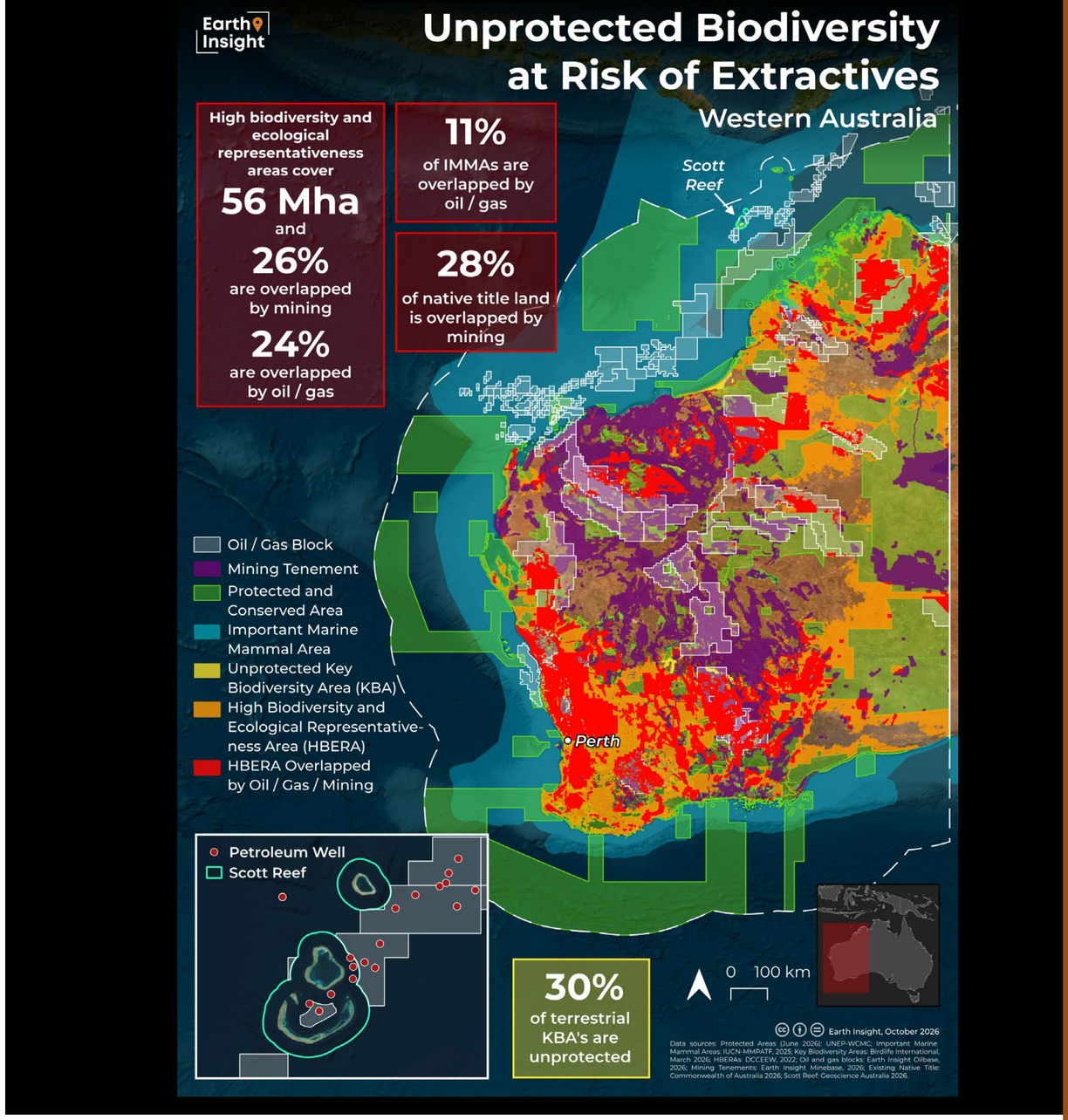
298,000 ha

of Key Biodiversity Areas overlapped by active oil and gas blocks

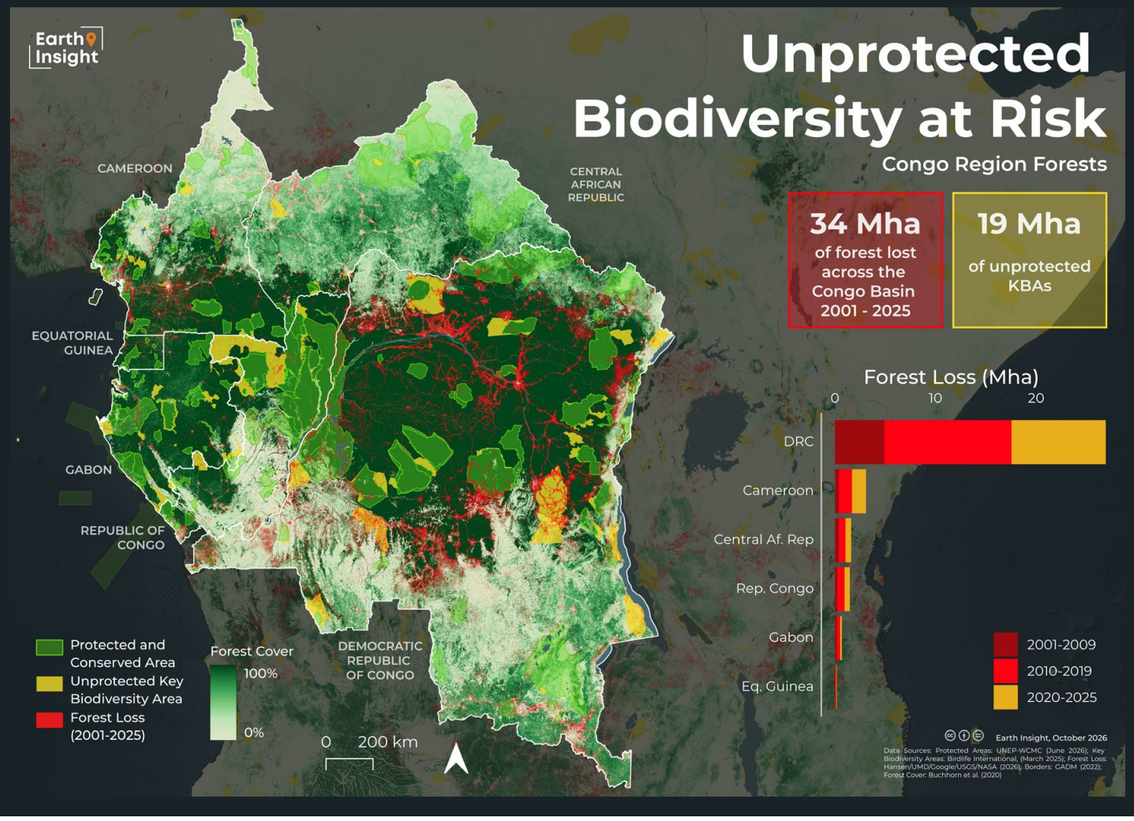
1,000+

unique species at Scott Reef, where gas drilling is proposed

Rock art beside the LNG plant, Murujuga, WA. Image Credit: Marius Fenger via Wikimedia Commons (CC BY-SA 4.0)



While Australia boasts impressive quantitative coverage of protected areas, it may serve as a cautionary tale to measuring success through area-based coverage alone. The extent of protection alone fails to capture the conservation integrity gap, as areas of high biodiversity importance can remain outside formal conservation systems, especially where competing opportunities for resource extraction create strong incentives for alternative land and marine uses.



Case study: Protecting Globally Significant Biodiversity in the Congo Basin Before It Is Lost

The Congo Basin is one of the most important regions on Earth for achieving the ambition of GBF Target 3. Home to the world's second-largest tropical rainforest covering 174 Mha of undisturbed forest, and largest tropical peatland complex, the region contains exceptional biodiversity, stores vast amounts of carbon, and regulates regional and global climate systems. But despite its global ecological significance, much of the Basin's highest-value biodiversity remains outside effective protection. As Central African countries work toward expanding protected and conserved areas under 30x30, the challenge is not only protecting more land but ensuring that conservation efforts prioritize equitable and effective protection in the landscapes most critical for biodiversity and ecosystem function.

This challenge is particularly urgent because many of the Basin's most important landscapes face accelerating industrial pressures and deforestation. **Between 2001 and 2025, 34 Mha of forest was lost; 82% of that loss (27.8 Mha) has happened since 2010, and 35% since 2020 alone.**

These alarming trends indicate that many of the forested landscapes most essential to achieving biodiversity outcomes are vulnerable, a risk that is exacerbated by extractive and large-scale industry and supporting infrastructure.

The urgency of safeguarding these landscapes is heightened by growing evidence that the **Congo Basin may be approaching critical ecological tipping points.** In order to preserve the Basin's hydrological and climate-regulating functions and avoid a tipping point crisis, **scientists consider it necessary to maintain at least 74% ecosystem intactness.**[40] Once these thresholds are crossed, ecosystem degradation could become increasingly difficult to reverse, threatening biodiversity, carbon storage, freshwater systems, and the livelihoods of millions of people who depend on the Basin's forests. Recognizing these risks, IUCN Members adopted **2025 IUCN Resolution 137 at the 2025 World Conservation Congress, calling for the protection of the Congo Basin from industrial threats and urging governments to safeguard the ecological integrity of this globally significant ecosystem.** Together, the scientific evidence and international policy response underscore the urgency of prioritizing the Congo Basin's remaining intact landscapes within high-integrity 30x30 implementation.

The Democratic Republic of Congo, home to 58% of the Basin's forest and the biggest source of this forest loss in the region, depicts the scale of both the threat and opportunity 30x30 presents. Created in January 2025, the country's Kivu-Kinshasa Green Corridor is envisioned as one of the world's largest conservation initiatives, supporting local community livelihoods and green economic development.[41] The Corridor extends over 54 Mha with the potential to protect vast areas of intact forest and strengthen ecological connectivity across the Congo Basin. However, significant portions of the proposed conservation landscape are overlapped by extractive concessions and promotional blocks, highlighting the tension between conservation ambition and industrial expansion. **Approximately 77% of the corridor remains undisturbed tropical forest, yet 39.2 Mha or 72% of the corridor would be overlapped by oil and gas blocks, in addition to 2.6 Mha of mining concessions and 6.4 Mha of logging concessions.** The overlaps with extractive concessions contradict the Green Corridor's aims of sustainable local economic development, biodiversity conservation and climate action, and undermine this opportunity for ecosystem preservation.

The Green Corridor also demonstrates that conservation planning is not only about expanding protected area boundaries—it is about securing the ecological integrity of those landscapes before they become fragmented, and respecting the rights, culture, and livelihoods of communities living in these landscapes. Avoiding fragmentation of remaining intact forests, removing incompatible industrial concessions from priority conservation areas, and promoting community-centered approaches to conservation will be essential to ensuring that 30x30 effectively protects the ecosystems that matter most.



CONGO BASIN

34 Mha

of Congo Basin forest lost between 2001 and 2025

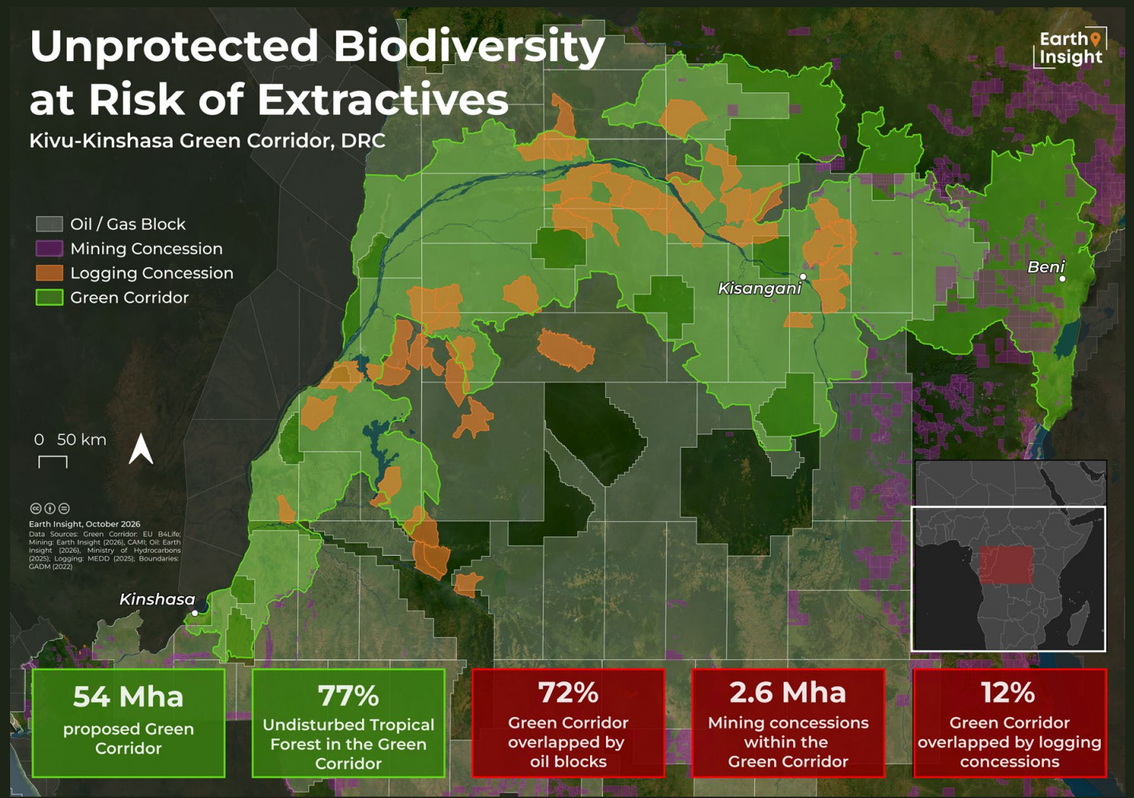
74%

ecosystem intactness scientists say must be kept to avoid a tipping point



Activists in Goma, DRC, march against oil in Virunga National Park. Image Credit: MNKF Creatives/350.org via Flickr (CC BY-NC-SA 2.0)

UNPROTECTED BIODIVERSITY AT RISK OF EXTRACTIVES



Importantly, the presence of existing concessions does not necessarily preclude future conservation. Governments may be able to withdraw, retire, or redesign extractive concessions, but in some cases must navigate contractual obligations, investor-state dispute settlement claims, or overlapping concession claims, which pose significant legal and financial barriers to concession retirement. Where immediate retirement is not feasible, **governments can nonetheless work to prevent further degradation by restricting new exploration or development, limiting expansion within existing concessions, or applying stronger environmental safeguards while maintaining options for future conservation.** These constraints that countries face only underscore the importance of identifying high-priority areas early and incorporating conservation objectives into land-use planning before development rights are established. Doing so will be critical for ensuring that the ecosystems that are most important for biodiversity are not degraded before high-quality conservation measures can be established.



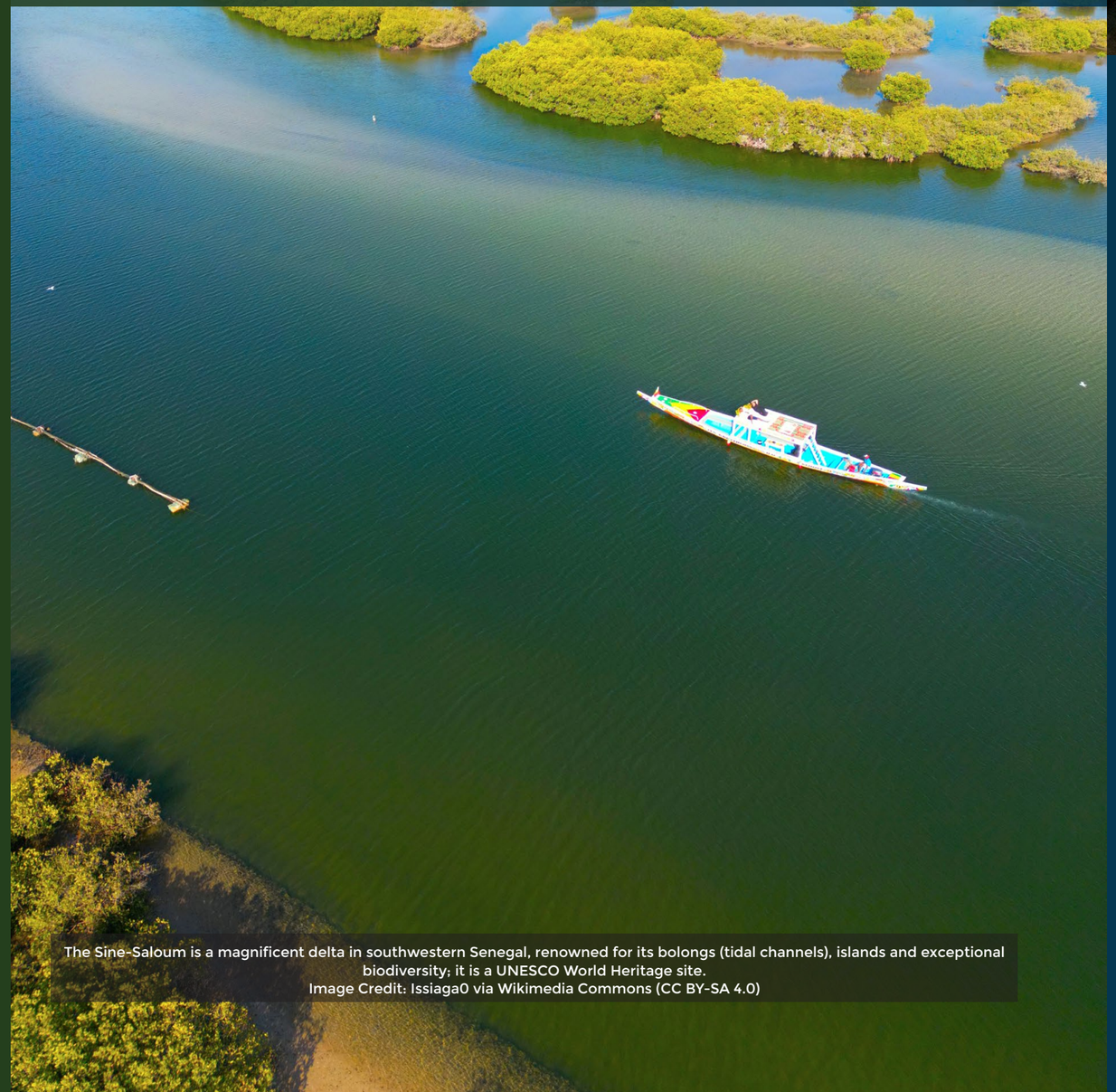
A village in the Congo Basin rainforest, Democratic Republic of the Congo.
Image Credit: VaLife via Adobe Stock



Mining ground at Manono, in the southeastern Democratic Republic of the Congo, where exploration for lithium and other critical minerals is expanding.
Image Credit: Glody Murhabazi / AFP via Getty Images

PROMISING PATHWAYS

Evidence-Based Pathways Toward High-Integrity Implementation



The Sine-Saloum is a magnificent delta in southwestern Senegal, renowned for its bolongs (tidal channels), islands and exceptional biodiversity; it is a UNESCO World Heritage site.
Image Credit: Issiaga0 via Wikimedia Commons (CC BY-SA 4.0)



The Lucha de los Diablitos, a Boruca celebration in Costa Rica marking perseverance and the preservation of the environment through cultural heritage.
Image Credit: The Rovers Quest via Wikimedia Commons (CC BY-SA 4.0)

PROMISING PATHWAYS

EVIDENCE-BASED INSIGHTS ON PATHWAYS TOWARD HIGH-INTEGRITY 30X30 IMPLEMENTATION

The threats to conservation identified above are not inevitable. The examples examined in this section point to three complementary pathways that may help Parties strengthen the integrity of 30x30 implementation: stronger legal safeguards and geographical exclusions for incompatible industrial activities; rights-based approaches that recognize and strengthen Indigenous and community governance and stewardship; and broader alignment of economic and development policies with biodiversity objectives. Ensuring that protected and conserved areas remain free from industrial pressures is fundamental to achieving lasting biodiversity outcomes.

PATHWAYS ASSESSMENT: KEY INSIGHTS

1

Strong legal standards and enforcement of exclusion zones that prohibit large-scale industrial activities within protected and conserved areas are essential for safeguarding ecological integrity and ensuring that protected areas deliver meaningful biodiversity outcomes.

2

Rights-based conservation approaches that recognize Indigenous Peoples' and local communities' tenure, governance, and stewardship consistently produce more durable, equitable, and effective conservation outcomes than state-led protection alone.

3

The ambition of high-integrity 30x30 requires transformative policy alignment, including conservation finance, cross-sector governance, and political commitment that addresses the underlying drivers of biodiversity loss rather than relying on incremental conservation measures alone.

1



Waorani women call for the result of Ecuador's Yasuní popular consultation to be respected.
Image Credit: COICA

Geographic Exclusion Policies Are Needed for 30x30

Adopting strong legal standards and enforcement of extractive exclusion policies that prohibit large-scale industrial activities within protected and conserved areas are essential for safeguarding ecological integrity and ensuring that protected areas deliver meaningful biodiversity outcomes.

As the previous case studies in Senegal and Cambodia demonstrate, formal designation as a protected or conserved area does not by itself ensure protection from incompatible industrial activities. Legal and policy frameworks may continue to permit such activities, or existing protections may be inadequately implemented or enforced. **High-integrity 30x30 implementation therefore requires both clear restrictions on incompatible activities and effective enforcement of protections already in place.** Recent research[42] indicates the growing use of legal and policy measures focused on addressing these issues. These measures can help by restricting fossil fuel extraction in areas designated for conservation, through enforceable rules that define where new development will not be permitted and how existing rights and concessions will be addressed to avoid undermining ecological outcomes.

For example, in December 2025, the Ghanaian government officially revoked a regulation that permitted mining in Forest Reserves, including in forests of critical importance to biodiversity. This consequential announcement means that mining concessions can no longer be given out in Ghana's protected forests, which cover over nine million hectares.[43] Political decisions and legal instruments such as these can provide mechanisms for addressing conflicts between protected-area objectives and industrial development agendas.

Strict exclusion zones are critical for all extractive and large-scale industrial activities in areas of particular importance for biodiversity, and especially important for fossil fuels while supporting a broader transition away from fossil fuels. An IISD analysis released in 2026 found a steady increase in fossil fuel production restrictions since the 1970s, with a sharp acceleration since the 2010s.[44] The database identifies 58 active restrictions on fossil fuel production, each of which represents a critical step in the right direction. Moreover, over 500 sub-national and local initiatives have declared themselves fossil-free zones, demonstrating broad grassroots momentum.[45] This growing momentum presents an important opportunity for high-integrity 30x30 implementation:

removing or retiring fossil fuel concessions and blocks that overlap with areas of high biodiversity importance, as we move toward a fossil-free future. Preventing new fossil fuel development and progressively retiring incompatible blocks and concessions can help ensure that conservation designations secure lasting ecological protection rather than simply increasing reported coverage.

Geographical exclusions are often understood as an upstream application of the mitigation hierarchy, giving effect to its first and preferred step: avoidance. In areas where industrial development would be incompatible with conservation objectives, avoidance requires preventing development altogether where it is likely to have negative impacts on protected and conserved areas and particularly sensitive areas of biodiversity importance, rather than relying on subsequent minimization, restoration or offsetting. This approach is consistent with guidance developed by the KBA Partnership for business[46] operating in landscapes with key biodiversity elements and recognizes that some impacts to biodiversity cannot appropriately be restored or offset.

Such measures are also key for ensuring that conservation does not reproduce or exacerbate existing inequities. Indigenous peoples and local communities often bear disproportionate social, cultural, and economic costs when extractive activities are permitted in or around areas they govern, depend upon, or hold customary rights to. Establishing clear exclusion zones, while respecting Indigenous peoples' rights, tenure, governance systems, and free, prior and informed consent, can help prevent conservation areas from becoming sites of continued industrial pressure and conflict.

While each jurisdiction is unique and approaches will vary according to specific legal and political contexts, these developments point to an important policy opportunity for high-integrity 30x30 implementation: using conservation targets as a catalyst for resolving longstanding conflicts between biodiversity protection and industrial development, and taking concrete steps toward **implementing clear and enforceable exclusion zones for activities incompatible with biodiversity conservation and protecting the rights and interests of the people who steward these areas.**

Case study: Correcting Course through Canada's Marine Protected Area Protection Standard

Canada's experience with marine protected areas (MPAs) illustrates both the opportunities and risks associated with ambitious global conservation targets. In pursuit of the CBD's Aichi Targets, the predecessor to the GBF, Canada rapidly expanded efforts to expand its marine conservation network to meet its international conservation commitments. However, the rapid designation of MPAs without meaningful protection and enforcement measures does not guarantee meaningful conservation outcomes.

The shortcomings of the rapid but ineffective approach to MPA designation became particularly apparent in the designation of the Laurentian Channel Marine Protected Area off the coast of Newfoundland and Labrador. When initially proposed, **only 12% of the MPA would have been off-limits to oil and gas, leaving 88% open to drilling and exploration.**[47] Public opposition to this approach highlighted growing concerns that protected areas allowing industrial development risked becoming "paper parks", areas recognized as protected in policy and international reporting, yet lacking the safeguards necessary to effectively conserve biodiversity.

In response to strong public opposition, Canada introduced the **Marine Protected Areas Protection Standard** in 2019 establishing minimum conservation requirements for newly designated federal MPAs. The Standard prohibits four especially damaging industrial activities in MPAs: oil and gas exploration and extraction, mining, dumping, and bottom trawling. By creating legally defined "no-go zones" for activities fundamentally incompatible with biodiversity conservation, the policy represented an important shift from measuring conservation success by area alone to one ensuring that protected areas deliver meaningful ecological outcomes.

Canada's experience speaks to the need for **strong, enforceable minimum protection standards, including restrictions on fossil fuel development within conservation areas.** At the same time, minimum standards alone do not ensure high-integrity 30x30 implementation. As of 2026, many older Canadian MPAs remain governed by management frameworks developed before the Standard, resulting in uneven levels of protection across the marine network. Even in the presence of strong standards, effective management, monitoring, enforcement, ecological representation, climate resilience, and meaningful Indigenous participation remain essential components of long-term conservation outcomes. Canada's MPA Standard also reflects a broader global shift toward **stronger fossil fuel restrictions, with protected and conserved areas offering a clear starting point for their application.**



CANADA

As originally proposed,

88%

of the MPA would have been open to oil and gas exploration and production

4

damaging industrial activities banned in new federal MPAs since 2019

A humpback whale dives off Bay Bulls, Newfoundland, as murres fly past. Image Credit: Nilfanion via Wikimedia Commons (CC BY-SA 3.0)



A deep-water drill rig moored near the shoreline in Newfoundland and Labrador, Canada. Image Credit: Wirestock via Envato Elements

2



A fisher flies a 'No to Gas' flag from an outrigger boat, Philippines.
Image Credit: Courtesy of Protect Verde Island Passage

We Cannot Compromise on Rights-Based Conservation

Rights-based conservation approaches that recognize Indigenous Peoples' and local communities' tenure, governance, and stewardship consistently produce more durable, equitable, and effective conservation outcomes than state-led protection alone.

Cleanup crews in protective suits clear spilled oil from a rocky shoreline, Philippines.
Image Credit: Courtesy of Protect Verde Island Passage

Approximately half of the world's land is traditionally held and used by IPs and LCs, yet as of 2020 only approximately 2 billion ha are designated for or owned by communities.[48] It is in these territories that IPs and LCs sustain their livelihoods, in which communal resources like water, forests, biodiversity, seeds, and traditional knowledge are carefully managed for the endurance of their communities, and the protection of the ecosystems that support them.

The GBF explicitly recognizes the role that Indigenous peoples and local communities play in biodiversity conservation, noting their unique roles as custodians of nature, partners in conservation, and holders of traditional knowledge. There is a growing recognition at the global scale that effective and equitable conservation outcomes can only be achieved through direct engagement with those who steward the natural environment. As emphasized in the 2025 Brazzaville Declaration by the Global Alliance of Territorial Communities, "Today, science confirms what our people have always known: we are the most effective stewards of biodiversity and the natural systems that regulate our climate."[49]

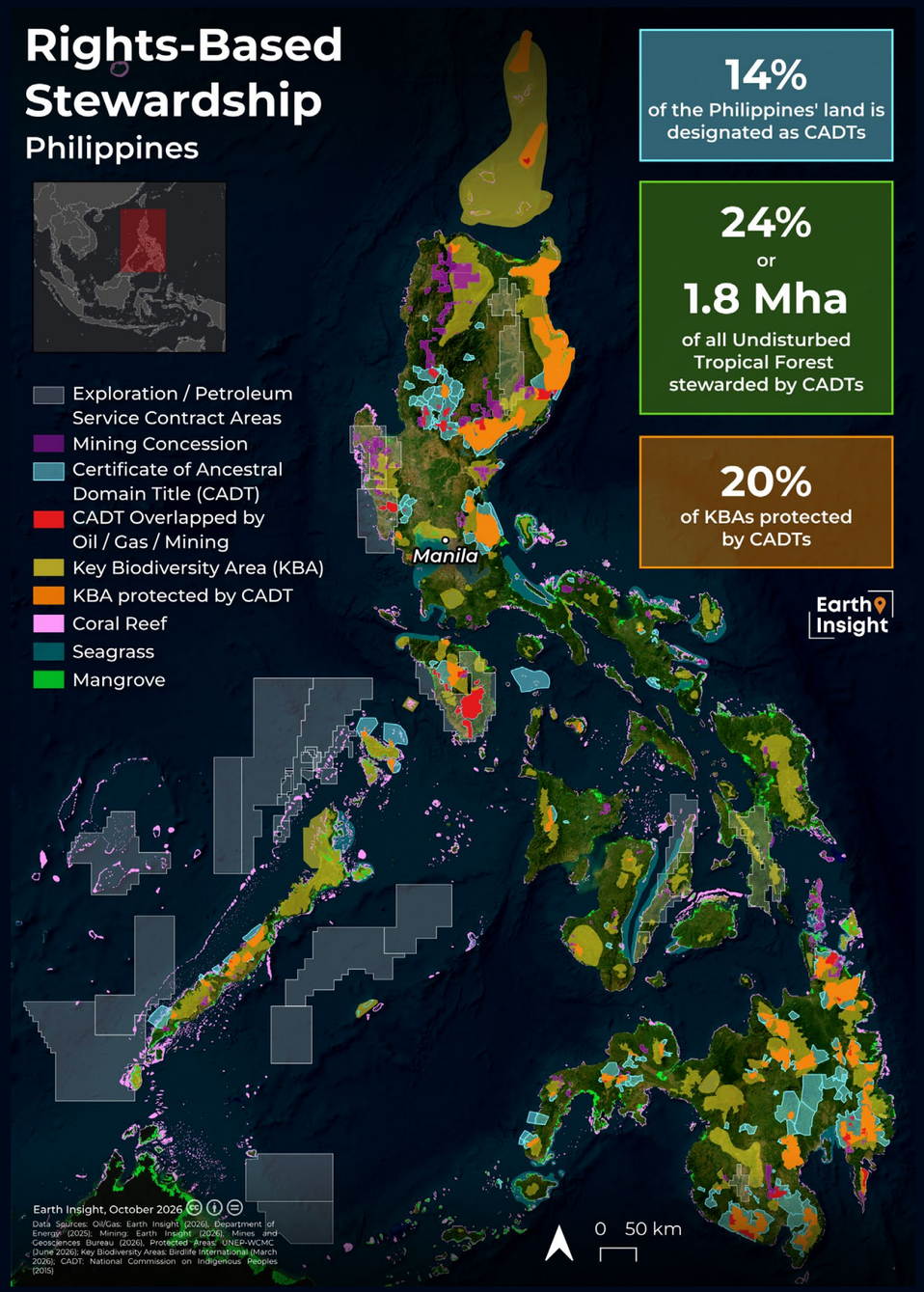
Yet despite the proven effectiveness of Indigenous and local stewardship in sustaining ecosystems, IPs and LCs continue to be systematically excluded, undermined, and under-resourced in conservation efforts.[50] **Legal pathways for recognizing community-led conservation that strengthen IP and LC territorial governance and management, including but not limited to as Other Effective area-based Conservation Measures (OECMs), are critical to high-integrity 30x30 implementation.** Recognition of IP and LC territories for conservation must reinforce existing systems of territorial governance and cannot be used as a mechanism to appropriate community territories or undermine Indigenous autonomy in the name of conservation. Any recognition of Indigenous and traditional territories must be led by Indigenous peoples themselves, and community-led FPIC protocols must be upheld when territories are formally recognized or reported toward 30x30 progress. At the same time, conservation must not restrict customary access to lands and waters or undermine communities' ability to continue their traditional livelihoods and stewardship practices.

Securing rights is also a crucial step toward high-integrity 30x30 implementation. Secure rights can support Indigenous and local communities with the authority, incentives, and access to resources to defend their territories against external pressures, while locally rooted, bottom-up approaches to conservation governance allow for stronger integration of traditional knowledge and local stewardship practices.[51]

As written and agreed to by all CBD parties, Target 3 does not simply require that 30% of the planet be designated as protected or conserved areas—it explicitly calls for these areas to be **effectively conserved and managed and equitably governed, recognizing the rights of Indigenous peoples and local communities.** The CBD's own guidance further emphasizes that Indigenous and traditional territories make critical contributions to GBF implementation and that any decision to formally recognize them in biodiversity conservation efforts must include FPIC. In turn, Indigenous peoples and local communities must be supported with direct funding and political mechanisms to protect their territories.

Indigenous peoples and local communities have called for more recognition, protection, and support of their role in conservation governance, as reflected in the Brazzaville Declaration.[52] This shared vision for territorial rights, governance, climate and biodiversity action calls on governments to recognize and protect Indigenous Peoples' and traditional territories, and their systems of governance, as an indispensable strategy for achieving Target 3. Further calls for territorial rights and governance to be explicitly incorporated into National Biodiversity Strategies and Action Plans (NBSAPs) and Nationally Determined Contributions (NDCs).[53]

The case studies that follow illustrate examples of how Indigenous and community rights can shape the integrity, durability, and effectiveness of conservation outcomes.



PHILIPPINES

70–80% of the world's plant and animal species are represented in its ecosystems

~50% of communities eligible for ancestral domain titles still have applications pending

Case study: Indigenous Rights as a Foundation for Conservation in the Philippines

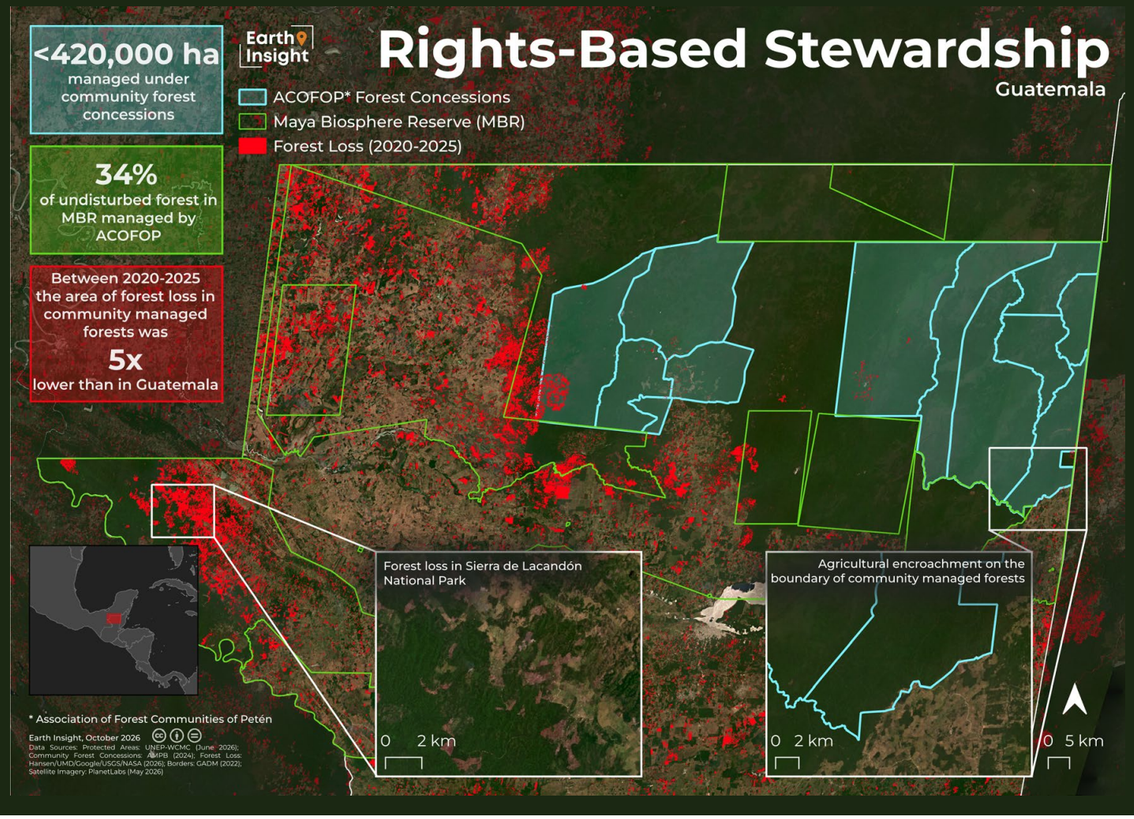
Recognized as one of the world's few "megadiverse" countries, the Philippines is home to extraordinary biodiversity, with an estimated 70%–80% of the world's plant and animal species represented in its ecosystems and almost half of its flora and fauna endemic to the country.[54] The rich biodiversity of the Philippines supports forests, wetlands, coral reefs, and coastal ecosystems that provide critical habitat for biodiversity while supporting millions of people through fisheries, forestry, clean water, and agriculture, and has been recently recognized through the country's significant updates to its KBA network. Indigenous peoples and local tribes have played an important role in maintaining these ecosystems, using ancestral knowledge and customary governance to protect vast tracts of intact land and waters.

For much of the history of formal conservation policies, Indigenous Peoples' rights, tenure, and stewardship have been overlooked or undermined. In the Philippines, legal recognition of Indigenous territories and the growing institutionalization of ICCAs is providing an opportunity to shift toward more equitable and effective conservation. Certificates of Ancestral Domain Title (CADTs) recognize Indigenous Peoples' collective rights over their ancestral lands and domains, and encompass some of the country's most intact forests and watersheds. **Approximately 1.8 MHa or 24% of the country's undisturbed tropical forest is found within approved CADTs, even though CADTs cover less than 14% of the country's land,** demonstrating the significant and disproportionate contribution that Indigenous territories can make to national conservation efforts if Indigenous peoples are empowered to protect their lands and waters.

Approximately half of communities with ancestral lands and domains eligible to be titled have applications under processing,[55] suggesting that the amount of forest under Indigenous stewardship may be significantly larger than currently estimated.

Continued investment in Indigenous-led conservation, including secure tenure, recognition of customary governance, and resources for Indigenous stewardship, offers a key opportunity to build on conservation outcomes already being realized on the ground. This begins with the expansion of approved CADTs by making the titling process more efficient for Indigenous communities. An expedited CADT application process would bring more land and coastal waters under Indigenous management, strengthening their territorial governance and stewardship. Formally recognizing Indigenous Peoples' and local communities' co-managed conservation areas as OECMs, where requested by Indigenous peoples themselves and where they meet the criteria for effective and durable conservation, will be an important element of the Philippines' path toward high-integrity 30x30 implementation. CADTs are already associated with strong conservation outcomes in the Philippines, and recognizing Indigenous rights can be a mechanism for achieving durable biodiversity protection.

The Philippine Biodiversity Strategy and Action Plan (PBSAP), the country's national implementation of the CBD's global framework, already treats ICCAs as a core pillar for meeting its biodiversity targets. Ensuring the recognition of ICCAs is Indigenous-led, not only facilitated through consultations, will be critical to ensuring that conservation outcomes are both ecologically durable and equitable for the communities who have sustained these territories. Similarly, the Philippines Government has committed to using KBAs to guide 30x30 planning and, given that 20% of KBAs are stewarded within CADTs, Indigenous Peoples need to be integral to conservation efforts. If the Government of the Philippines takes meaningful steps to recognize CADTs as ICCAs and OECMs, where appropriate and with the full FPIC of Indigenous peoples, it could make substantial progress toward high-integrity 30x30 implementation.



Case study: Community Managed Forests in the Maya Biosphere Reserve, Guatemala

At over 2 million hectares, the Maya Biosphere Reserve (MBR) covers approximately 19% of Guatemala's landmass and is the largest protected and conserved area in Central America.[56] The MBR represents an important cornerstone of Guatemala's protected area network and is home to critical biodiversity in ecosystems ranging from wetlands, mountain ranges, forests, lakes, and rivers. MBR is also home to approximately 180,000 people, and puts forward an important model of multiple-use forest management meant to balance forest use for economic development with conservation.

Despite its protected status though, MBR has experienced significant forest loss. Between 2010 and 2025, the reserve lost nearly 31% of its forest cover, driven by pressures including agricultural expansion, cattle ranching, illegal logging, and other forms of land conversion that bring into question the effectiveness of protection within the reserve. But within this broader landscape of degradation, **community-managed forests have emerged as striking examples of effective, locally led conservation.**

The evolution of the Association of Forestry Communities of Petén (ACOFOP) within the MBR stands as a compelling and potentially replicable model of strong, community-led conservation strategies. ACOFOP was established to improve the well-being of forest communities in Petén while promoting sustainable forest management that improves and preserves the ecological condition of the forest.[57]



Community forest concession members repair a work truck, Melchor de Mencos, Petén, Guatemala. Limiting road development also limits access for poaching and illegal logging. Image Credit: Jason Houston for USAID via Wikimedia Commons (public domain)

Through twelve community forestry concessions, covering approximately 420,000 ha within the MBR's multiple-use zone, communities gained legally recognized rights and responsibilities to manage forest resources.[58]

This approach has proven to not only improve economic opportunities and livelihoods for communities but also deliver strong conservation outcomes. **Our analysis finds that deforestation rates fall below 1% in community-managed forests, over five times lower than the forest loss rate in Guatemala (5.5%) on average for the same 2021–2025 time period.** Importantly, this model does not rely on excluding people from protected areas or restricting communities' access to forest resources. Instead, it recognizes that conservation and livelihoods can be mutually reinforcing when communities have secure rights and sustainable economic opportunities tied to maintaining healthy forests.

Despite providing clear evidence that community resource management and conservation can be successful, the community forest concessions managed by ACOFOP are time-limited. In 2021, forest communities signed a 25-year contract extension for these community forests, however under Guatemalan law concession contracts can only be extended once[59]. Consequently, the communities living in and managing these forests do not have secure, long-term tenure rights and are at risk of losing the land that supports their livelihoods, while the MBR risks losing the stewards of the most well-preserved forest in the reserve.

Over and over again we see that protected areas facing external pressures may fail to meaningfully protect biodiversity without effective local governance and stewardship. By contrast, where communities have tenure, meaningful management responsibilities, and incentives to conserve, community governance can deliver durable biodiversity outcomes. The community forestry concessions in MBR demonstrate that recognizing and strengthening community stewardship can support effective conservation on the ground, providing important lessons for high-integrity 30x30 implementation elsewhere.



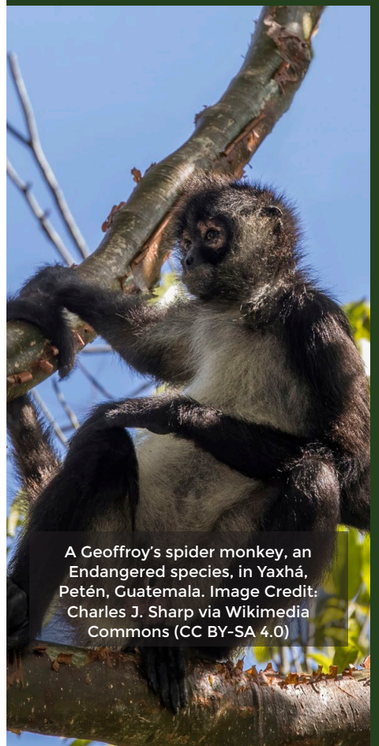
GUATEMALA

~31%

of the Maya Biosphere Reserve's forest cover lost between 2000 and 2024

180,000

people live in the Maya Biosphere Reserve



A Geoffroy's spider monkey, an Endangered species, in Yaxhá, Petén, Guatemala. Image Credit: Charles J. Sharp via Wikimedia Commons (CC BY-SA 4.0)

RIGHTS-BASED STEWARDSHIP

3



Pablo Jamioy of OPIAC presents an Earth Insight map of Colombia's hydrocarbon blocks at a COP16 briefing in Cali, Colombia.
Image Credit: Courtesy of Earth Insight

Transformative Approaches Are Vital for 30x30 Implementation

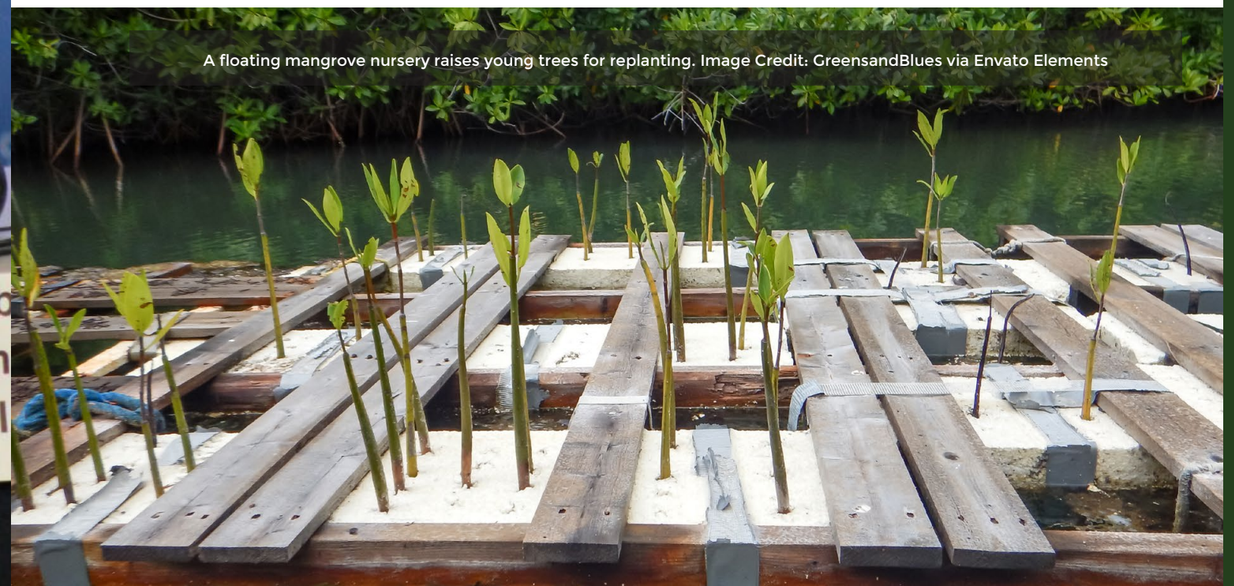
The ambition of high-integrity 30x30 requires transformative policy alignment, including conservation finance, cross-sector governance, and political commitment that addresses the underlying drivers of biodiversity loss rather than relying on incremental conservation measures alone.

The spirit of 30x30 and the broader GBF goes beyond simply increasing the area under conservation. At the core of this global commitment and ongoing cooperation on biodiversity is the goal of halting and reversing nature loss and achieving a world living in harmony with nature. This broader objective requires a whole-of-society approach and transformative change to achieve ambitious biodiversity outcomes. Transformative change entails deep, systemic, and paradigmatic shifts in society, including more sustainable patterns of production and consumption, the reform of harmful subsidies, and increased financial and other resources for conservation and restoration.[60]

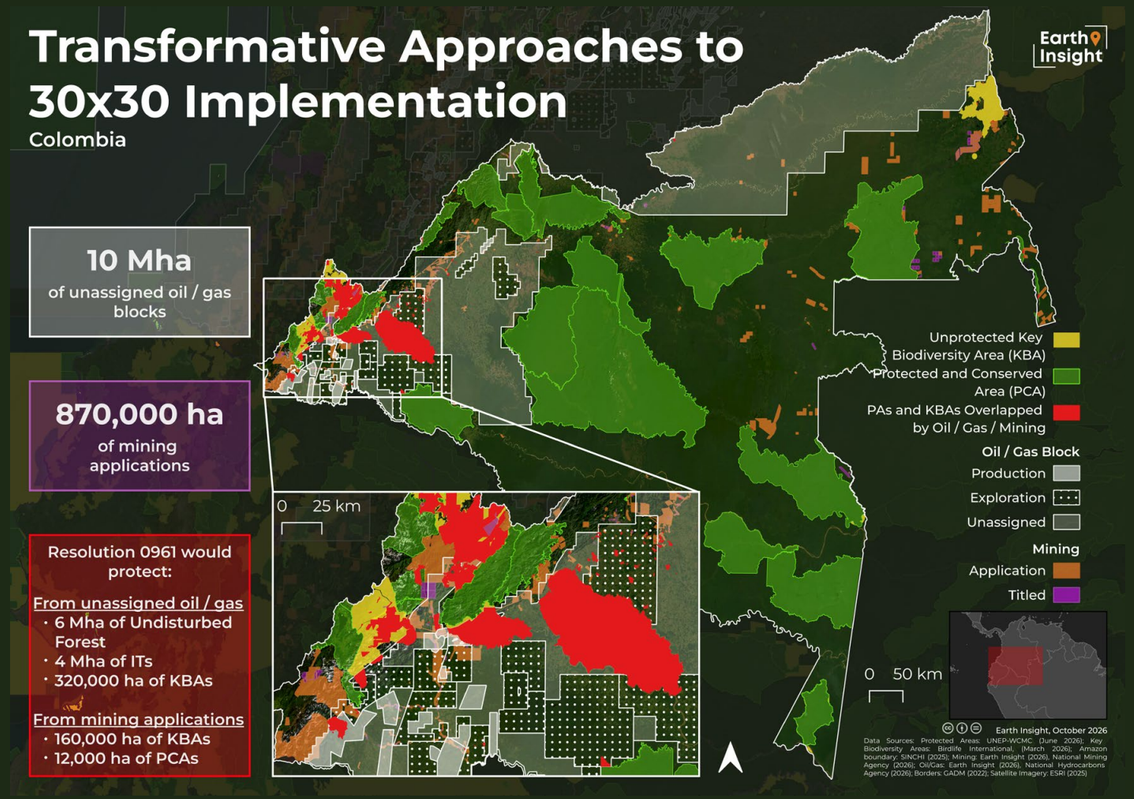
For high-integrity 30x30 implementation, this means that expanding the area under conservation cannot happen in isolation from the economic and political systems that continue to drive biodiversity loss. Protected and conserved areas are embedded within landscapes and economies shaped by resource demand, infrastructure, energy, mining, and other potentially harmful sectors. Without addressing these underlying pressures, gains in conservation coverage can be undermined by continued investment in and prioritization of industries that incentivize ecosystem degradation.

Target 1 provides an important upstream complement to Target 3 by calling for biodiversity-inclusive spatial planning and management to address land- and sea-use change. Integrating biodiversity priorities into these processes can help identify and address potential conflicts between conservation and industrial development before concessions, infrastructure or other development rights are established. Transformative approaches therefore require greater alignment across government policies and sectors including public finance, spatial planning, infrastructure and energy policy, and the redirection of incentives away from activities that drive biodiversity loss.[61] It also requires the engagement and cooperation of private sector actors and sufficient and sustained financing for protected and conserved areas, restoration, Indigenous-led conservation, and the governance of systems that underpin long-term stewardship.

Transformative change will not look the same in every context, but progress must urgently be made toward societies that value nature and invest in its protection in ways that advance the shared goal of living in harmony with nature. The case studies below highlight emerging approaches that move beyond incremental conservation measures, demonstrating how governments can align policy, finance, and cross-sector decision-making to address the underlying drivers of biodiversity loss and strengthen the foundations for high-integrity 30x30 implementation.



A floating mangrove nursery raises young trees for replanting. Image Credit: GreensandBlues via Envato Elements



Case study: Colombia's Transformative Pathway for Halting Fossil Fuel Development in the Amazon and its Potential for 30x30 Integrity

In November 2025, Colombia announced a potentially historic shift in the governance of its Amazon region, committing to prohibit new oil, gas, and large-scale mining projects across its entire share of the Amazon biome. Covering more than 48.3 Mha and representing 42% of Colombia's territory, the Colombian Amazon is home to 6.6 Mha of KBAs and 29.3 Mha of recognized IP and LC lands that steward critical biodiversity and intact forests. This declaration represents one of the most ambitious efforts by an Amazonian nation to align biodiversity conservation, climate action, and Indigenous territorial rights with a transition away from extractive development. If fully implemented and enforced, the policy could become a globally significant example of a transformative pathway for addressing industrial expansion into intact natural ecosystems, while supporting stronger 30x30 implementation by permanently removing extractive threats from the landscape. The declaration reinforces decades of work by previous governments to protect the Amazon using diversified conservation strategies, including the creation of new Protected Areas and the demarcation and strengthening of territorial governance by Indigenous Peoples.

As of August 2026, **unassigned blocks cover 10 Mha, or 86% of the country's oil and gas footprint in the Colombian Amazon.**



A canoe on a river under storm clouds, Amazonas, Colombia. Image Credit: M M via Wikimedia Commons (CC BY-SA 2.0)

Removing these blocks would constitute a significant reduction in threats to 6.1 Mha of undisturbed tropical forest and 4.3 Mha of Indigenous peoples and local communities' lands. Permanently removing unassigned blocks is thus essential for high-integrity 30x30 implementation and would help ensure that areas most in need of conservation are not vulnerable to industrial encroachment. The ban on new oil and gas activities further reflects that new exploration would not effectively contribute to Colombia's energy security and instead would require significant subsidization.[62]

The 2025 declaration reinforces Colombia's growing international leadership on climate and biodiversity policy, building on its support for the Beyond Oil and Gas Alliance, the participation in the construction of a Fossil Fuel Treaty membership, its leadership role at CBD COP16, and its convening of the first-ever conference on Transitioning Away from Fossil Fuels in early 2026. Importantly, it signals a shift from protecting nature solely through protected area designation toward addressing the industrial drivers of biodiversity loss directly, a critical evolution for achieving durable conservation outcomes, and further bolsters the importance and effectiveness of Indigenous territorial governance to protect biodiversity.

The challenge now is implementation. The announcement does not automatically eliminate existing concessions, nor does it permanently remove unassigned oil and mining areas from future development. In early August 2026, the government passed Resolution 0961, with free, prior, and informed consent from OPIAC and other Indigenous organizations, declaring the Colombian Amazon closed to new mining and oil concessions—an important step in the right direction. However, with a new, pro-extraction government in office, the durability of this resolution is in question. Binding law and durable policy is the necessary next step to transform a promising political commitment into a globally significant model for preventing new extraction, industrial threat reduction, and the realization of high-integrity 30x30 implementation across one of the planet's most important ecological regions.



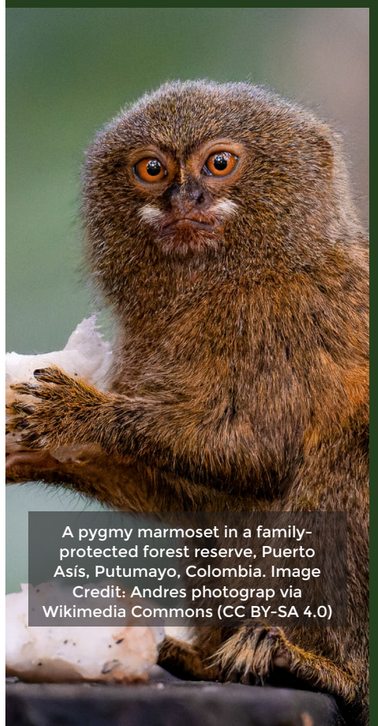
COLOMBIA

48.3 Mha

of Amazon, 42% of Colombia, pledged closed to new oil, gas and large-scale mining

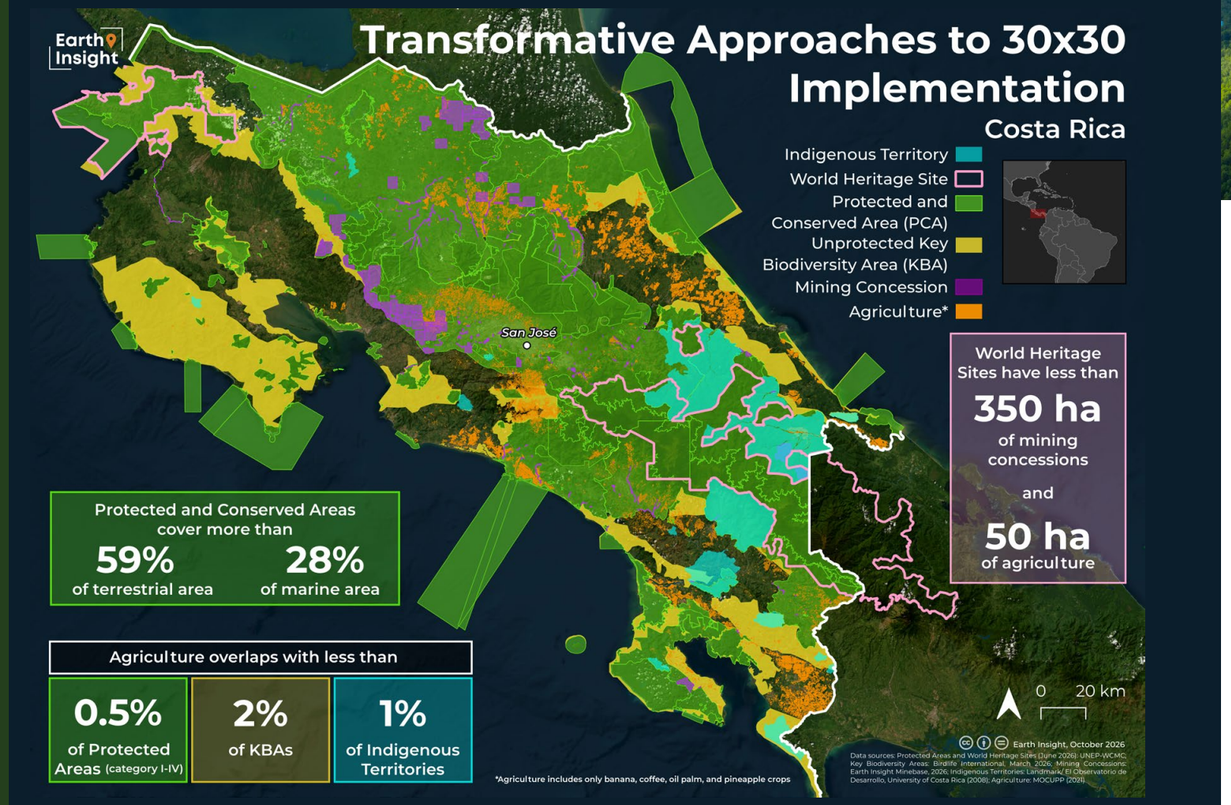
29.3 Mha

of Indigenous, Afro-descendant, and local community lands recognized in the Colombian Amazon



A pygmy marmoset in a family-protected forest reserve, Puerto Asís, Putumayo, Colombia. Image Credit: Andres photograp via Wikimedia Commons (CC BY-SA 4.0)

TRANSFORMATIVE APPROACHES ARE VITAL FOR 30X30 IMPLEMENTATION



Case study: Costa Rica as a strong example of High-Integrity 30x30 Implementation

While no country is perfect in its 30x30 implementation, Costa Rica has been a leader in pioneering innovative incentive structures, prioritizing conservation, and recognizing the value derived from protecting nature in the face of competing land-use opportunities. Costa Rica has made steady progress toward high-integrity 30x30 implementation, with over 160 protected areas covering more than 26% of its land and inland waters and 28% of its marine environment.[63] Costa Rica has further been a leader in ecosystem connectivity, using other forms of conserved areas including UNESCO World Heritage sites and MAB Reserves to connect and protect a striking 59% of the country, although notably the country's KBA's network still requires updating to the current KBA standard. Costa Rica has also demonstrated the potential for restoration to complement protection—decades of investment in tropical forest restoration and the end of harmful subsidies[64] have helped reverse widespread deforestation, showing how degraded landscapes can be successfully restored when supportive policies and incentives are in place.[65]

Critically, Costa Rica has not pursued conservation independently of economic growth. The country has leveraged opportunities to demonstrate the value of natural assets and generate investment in their protection and the rural communities that steward them.



The Sierpe–Térraba delta beside Corcovado National Park, Osa Peninsula, Costa Rica. Image Credit: Juan Carlos Muñoz via Adobe Stock

From a lucrative nature-based tourism industry to innovative sustainable finance mechanisms including payments for ecosystem services schemes, Costa Rica has built economic incentives around conservation and invested in maintaining the natural assets on which ecosystem services depend.[66]

Costa Rica has also demonstrated an impressive track record of keeping large-scale extractive activities out of protected areas. Across IUCN Category I-IV protected areas, the strictest protected area designations, large-scale agriculture overlaps with less than 0.5% of PAs, with similar limited overlaps from mining concessions. Their success in keeping large-scale industrial activities out of protected areas demonstrates the importance of pairing area-based conservation with measures that prevent activities incompatible with ecological outcomes from undermining protected areas in practice.

Costa Rica's experience also illustrates the potential contribution of World Heritage sites to high-integrity 30x30 implementation. World Heritage sites in Costa Rica have less than 350 ha of mining concessions and 50 ha of agricultural activity within their boundaries, suggesting that these internationally-recognized areas can complement national conservation frameworks in safeguarding places of exceptional ecological and cultural importance. While World Heritage designation is not itself a guarantee of effective conservation, the additional recognition, scrutiny, and accountability associated with these sites can reinforce protection against incompatible activities.[67] As countries implement 30x30, World Heritage sites can therefore form part of a broader landscape of mutual reinforcing conservation measures aimed not simply at expanding protected coverage, but at securing durable biodiversity outcomes.[68]

Costa Rica's progress toward high-integrity 30x30 implementation is not simply the result of expanding protected area coverage. It reflects decades of sustained investment in conservation, innovative financing, commitment to sustainable rural development, socio-political stability, strong institutions, and a willingness to align economic incentives with the long-term value of nature. The country's commitment to a more livable future for people and the planet helps demonstrate that high-integrity conservation is not only possible but can be embedded within broader economic and development strategies when governments invest in the institutions, incentives, and policies needed to sustain it.



COSTA RICA

160+

protected areas across the country



A researcher retrieves a canopy sensor in Rincón de la Vieja National Park, Costa Rica. Image Credit: Milan Loiacono/NASA via Wikimedia Commons (Public domain)

TRANSFORMATIVE APPROACHES ARE VITAL FOR 30X30 IMPLEMENTATION

KEY RECOMMENDATIONS

High-Integrity 30x30 Implementation

The key findings of this report demonstrate that achieving the quantitative ambition of 30x30 is not enough. High-integrity 30x30 implementation requires ensuring that conservation reaches the places most important for biodiversity, delivers effective, equitable, and durable outcomes, safeguards them from incompatible extractive and large-scale industrial expansion, and is underpinned by the rights, governance, policies, finance, knowledge, capacity, and accountability needed to sustain those outcomes. Seven priorities for governments emerge from this study:

01

Protect biodiversity outcomes, not hectares alone

Progress toward Target 3 should be assessed not only by the percentage of land and ocean counted as protected or conserved, but by whether those areas are actually delivering biodiversity outcomes. Governments should prioritize ecological integrity, connectivity, representativeness, effectiveness, equitable governance, and durability of conservation areas, while assessing and addressing the industrial pressures that may undermine their conservation objectives, alongside rightsholders and stakeholders. "Paper parks" should be avoided and formal designation should be a means to achieving conservation outcomes, in places of particular importance for biodiversity. The 30% target should be understood as a global minimum rather than an ecological ceiling: where maintaining biodiversity, connectivity, ecosystem functions, or avoiding tipping points require levels of conservation, ambition should respond to ecological needs.

02

Establish and enforce geographical exclusions for extractive and large-scale industrial activities in protected and conserved areas

Governments should establish clear, enforceable and scientifically-informed minimum protection standards that prevent new extractive and large-scale industrial activities in protected and conserved areas, avoiding degazetting, downgrading and downsizing of PCAs, and prioritizing avoidance within the mitigation hierarchy. Existing concessions and industrial activities that overlap with these areas should be reviewed and, where they will negatively impact ecosystem integrity, be retired, withdrawn, redesigned, or phased out. Stronger exclusion measures should also be considered for ecosystems of exceptional biodiversity importance, high ecological integrity, or vulnerability to tipping points, where preventing industrial expansion is necessary to maintain ecosystem function.



Delegations fill the closing plenary at COP15, where the Kunming-Montreal Global Biodiversity Framework was adopted, Montreal, Canada, December 2022. Image Credit: UN Biodiversity via Wikimedia Commons (CC BY 2.0)



COP15 President Huang Runqiu of China raises the gavel as the Kunming-Montreal Global Biodiversity Framework is adopted, Montreal, Canada, December 2022. Image Credit: UN Biodiversity via Wikimedia Commons (CC BY 2.0)

03

Prioritize areas of particular importance for biodiversity in 30x30 expansion

Expansion toward 30x30 should prioritize the places that matter most for biodiversity, starting with identified Key Biodiversity Areas (KBAs),[69] intact and high-integrity ecosystems, ecologically representative areas, and landscapes and seascapes critical for connectivity. Consistent with Target 1, biodiversity priorities should also inform spatial planning and development decisions so that incompatible industrial activities can be avoided in areas of particular importance for biodiversity before degradation occurs or development rights are established. Governments should act proactively to prevent incompatible industrial development in priority conservation areas before degradation occurs.

04

Recognize, secure, and strengthen Indigenous Peoples' and local communities' rights, territorial governance, and traditional knowledge systems

Indigenous Peoples and local communities must be recognized as right-holders, governing authorities, knowledge holders, and essential conservation partners. Governments should ensure recognition of and strengthen customary and traditional governance systems, secure land and territorial and resource rights, and uphold transparent and community-led free, prior and informed consent (FPIC) protocols. These territories must also be safeguarded from external industrial pressures that threaten IPs and LCs' right to territorial autonomy and their cultural and ecological integrity. Governments should ensure that recognition of Indigenous and traditional territories and waters as contributions toward 30x30 is led by and supported by the peoples and communities concerned, based on respect for traditional knowledge systems, cultural heritage, and community-defined protocols, and supported by direct financing to Indigenous peoples and local communities for community-led conservation.

05

Invest in conservation and the people and systems that make it possible

High integrity implementation of 30x30 requires adequate and sustainable means of implementation. Governments, donors, financial institutions, businesses, and other actors should mobilize resources for effective management and enforcement, ecological monitoring, restoration, secure tenure, Indigenous and community stewardship and locally led conservation. Investment should strengthen not only conservation areas themselves, but also the people, institutions, knowledge systems, monitoring capacity, and governance structures necessary to sustain biodiversity outcomes over time.

[69] Many countries have not updated their KBA networks by applying the criteria to all species and ecosystems, meaning at least half of their KBA sites are likely missing where they have not undergone review.

RECOMMENDATIONS



Indigenous participants form ranks for a ceremonial march in front of Brazil's National Congress during the Acampamento Terra Livre, Brasília, April 2019. Image Credit: Mídia Ninja / Apib Comunicação via Wikimedia Commons (CC BY-SA 2.0)

Beyond 30x30: Enabling High-Integrity Implementation Across the GBF

The findings of this report also demonstrate that Target 3 cannot succeed through conservation policy alone. Many of the pressures undermining protected and conserved areas and other areas of particular importance for biodiversity originate in decisions made outside conservation systems. Extractive licensing, infrastructure development, energy and mineral strategies, economic incentives, public and private finance, and broader development policies can either reinforce conservation outcomes or undermine them.

06



Align industrial, infrastructure, and economic policy with biodiversity commitments

The widespread overlap between industrial development and areas of conservation importance documented in this report reveals a broader challenge of policy incoherence. Governments cannot effectively pursue biodiversity conservation while simultaneously enabling incompatible extraction, infrastructure, or development in the same landscapes and seascapes. Biodiversity objectives should therefore be integrated across participatory, integrated and biodiversity-inclusive spatial planning and management, consistent with Target 1 of the GBF, as well as extractive licensing, infrastructure development, energy and mineral strategies, public investment, and wider economic and development policy to ensure policy coherence. Governments should strengthen cross-ministerial coordination, identify, address, and implement policies, subsidies, and incentives that drive biodiversity loss, and strengthen positive incentives for conservation and sustainable use. Public and private financial flows need to progressively align with biodiversity objectives. High integrity implementation of 30x30 requires a whole-of-government approach in which biodiversity commitments influence decisions well beyond environmental ministries.

07



Align incentives, finance, and the wider means of implementation with the GBF

Achieving the wider ambition of the GBF requires addressing the economic and institutional conditions that drive biodiversity loss. Governments and other actors should identify and address policies, subsidies and incentives that drive harmful economic activity and undermine biodiversity, strengthen positive incentives for conservation and sustainable use, and progressively align public and private financial flows with biodiversity objectives. This requires adequate means of implementation, including finance, institutional capacity, knowledge, data, monitoring, and effective governance. Whole-of-government and whole-of-society approaches are essential to translate the GBF from a set of global commitments into coherent action across the sectors and decisions that shape biodiversity outcomes.

Conclusion

The global commitment to conserve at least 30% of the world's lands and waters by 2030 represents an unprecedented opportunity to strengthen biodiversity conservation at the scale needed to address the global biodiversity crisis. But as the findings of this report show, achieving the quantitative ambition of Target 3 alone will not deliver the outcomes needed for people and nature to thrive. **High-integrity 30x30 implementation requires ensuring that the areas counted toward the target actually deliver durable biodiversity outcomes, prioritize areas of particular importance for biodiversity, maintain ecological integrity, uphold the rights and contributions of Indigenous Peoples and local communities, and protect these areas from incompatible extractive and other large-scale industrial activities.** Without these safeguards, there is a risk that 30x30 progress will be measured in hectares while biodiversity continues to decline within and beyond areas designated for conservation.

The research and case studies presented in this report demonstrate why the quality and integrity of the protection matter for achieving meaningful conservation outcomes. Pressure from extractive and large-scale industrial activities can undermine conservation ambitions both in areas already formally designated for conservation and in areas of biodiversity importance that remain unprotected. As development and resource demands continue to grow, mining, oil, gas, logging, and associated infrastructure and other industrial pressures increasingly intersect with protected areas, Indigenous territories, KBAs, and other landscapes critical to biodiversity. In some cases, these overlaps represent potential future threats; in others, industrial development is already underway, destroying habitats and risking irreversible damage to biodiversity.

Ultimately, high-integrity 30x30 implementation will require greater policy coherence, moving beyond a model in which conservation is treated as a land-use priority competing against industrial development toward one in which biodiversity objectives are integrated across decisions on how land, oceans, and natural resources are governed. This means integrating biodiversity priorities into spatial planning and development decisions so that areas of particular importance for biodiversity are identified and safeguarded before incompatible activities are authorized, addressing industrial threats before they reach areas of critical biodiversity importance, removing incompatible concessions where necessary, strengthening legal protections, securing Indigenous and community rights, and aligning economic and development policies with biodiversity objectives.

The few years remaining to 2030 provide a narrow but increasingly important window to make tangible progress toward meaningful and equitable biodiversity conservation. Many governments are underway working toward increasing the area reported toward the 30x30 goal, and now is the time to ensure that the conservation outcomes they deliver leave behind a legacy of true ecological protection and equitable governance. Moving into the final push toward implementing the Kunming-Montreal GBF, the success of Target 3 must be measured not only by how much area can be counted as protected, but whether the most important ecosystems are intact, connected, effectively governed, and capable of sustaining biodiversity for generations to come. Achieving that outcome will also depend on realizing the wider transformative vision of the GBF, ensuring that the decisions shaping economies and societies reinforce, rather than undermine, the conservation of the land and waters on which life depends.

Methodology

Spatial Analysis Methodology

Report Review:

This report would not have been possible without the guidance, input, and validation provided by our regional partners: Mbacke Seck (Hann Baykeeper) (Senegal), Phaekkday Nguon (Forest Governance Expert, European Forest Institute) (Cambodia), RFUK (Congo Basin), CELCOR (PNG), Fundación PRISMA (Costa Rica, Guatemala), Center for Energy, Ecology, and Development (CEED) (Philippines), Andres Gomez (Fossil Fuel Treaty) (Colombia). Case studies were reviewed and validated by partners.

Data Disclaimer:

The geospatial analyses in this report are an attempt to capture the extent of extractive and large-scale industrial threats to the areas critical to biodiversity conservation and Target 3 of the KMGBF - protected and conserved areas, key biodiversity areas, Indigenous Peoples and local communities' lands, and important terrestrial and marine ecosystems, using the most recent, accurate, and precise data and methods available. As such, the results of these analyses may change between reports as data and/or methods are updated.

The World Database on Protected and Conserved Areas (WDPCA) has known data inconsistencies due to data reporting,[70] and is updated monthly. The World Database of Key Biodiversity Areas (WDKBA) releases bi-annual updates based on national assessment processes; however, most countries[71] have not completed comprehensive national KBA assessments in accordance with the KBA standard.[72] We have accounted for these inconsistencies wherever possible.

There are places where the oil and gas blocks, mining concessions, and logging concessions overlap. Given the distinct threat each industrial activity poses, the overlaps with ecosystems and communities have been calculated separately for each and should not be combined.

Extractive Threat Analysis

Oil and Gas Blocks

The extent of oil and gas blocks was compiled by Earth Insight based on recent official publications and/or data released by the relevant ministries, agencies, and the national petroleum companies. Oil and gas data in Indonesia, Venezuela, Cambodia, Thailand, and Papua New Guinea was supplemented by data from NGOs and other data providers.

Earth Insight takes a precautionary approach to estimating the potential area under oil and gas blocks. Oil and gas data used in the analyses in this report include active production blocks and areas under multiple stages of exploration and permitting, with the exception of shelved blocks. This approach provides the most expansive view of areas under threat of extractive industries while taking into account spatial planning decisions of governments. Overlapping features were removed before performing area-based calculations.

Mining Concessions

The extent of mining blocks was compiled by Earth Insight based on recent official publications and/or data released by the relevant ministries and agencies. Mining concession data in Indonesia, Venezuela, Bolivia, Suriname, Cambodia, Malaysia, Myanmar, Democratic Republic of Congo, the Republic of Congo, the Central African Republic, Gabon, and Cameroon was supplemented by data from NGOs and other data providers."

Earth Insight takes a precautionary approach to estimating the potential area under mining concessions. Mining concession data used in this analysis includes concessions that are titled, in production and exploration, or pending approval, excepting expired concessions and shelved concessions. This approach provides the most expansive view of areas under threat of extractive industries while taking into account spatial planning decisions of governments. Overlapping features were removed before performing area-based calculations.

Pantropics Extractive Threat Maps:

Domains

Onshore domains were defined using GADM v 4.1. Offshore domains were defined using Exclusive Economic Zones. In places where there are portions of EEZs under joint regimes, the area was counted towards both countries. Onshore and offshore analyses were completed separately.

Protected and Conserved Areas

All analysis of protected and conserved areas (PCAs) was done using the June 2026 release of the WDPCA, which includes both Protected Areas and Other Effective Area-Based Conservation Measures (OECMs).

The PCA layer was created by removing duplicate and overlapping protected area features before running the area-based analysis. All PCAs, including UNESCO World Heritage Sites, MAB Reserves, and Ramsar Sites, were included, even where they were not specifically designated as OECMs.

A second layer of strictly protected PAs was created by selecting protected areas with IUCN categories I - IV, based on IUCN recommendation that no industrial activities including oil, gas, and mining, should occur in these protected areas. Protected areas that did not have a IUCN category but were designated 'National Parks' were recategorized as IUCN category II to account for the gaps in reported attribute data for certain countries. Duplicate and overlapping protected area features were removed before running the area-based analysis.

The PCA layer was intersected with GADM v4.1 and EEZ to calculate the area of PCAs in each country. The PCA-GADM/EEZ layer was intersected with oil and gas blocks to calculate the area of PCAs overlapped by oil and gas blocks, and then summed by GADM/EEZ country boundary. The same steps were repeated with the mining concession layer.

These same steps were repeated with the Strictly Protected Areas (IUCN Categories I-IV) layer.

Note - This analysis excludes PCAs for which only point data is available because using a buffer around points introduces too many inaccuracies in concession overlap analyses. We recognize that this will produce differences between our calculations and other calculations.

Key Biodiversity Areas (KBAs) Unprotected KBAs

All analysis of Key Biodiversity Areas was done using the March 2026 release of the WDKBA. While this database provides the most comprehensive and up-to-date data on KBAs, to date only Bolivia, Canada, Colombia, DRC, Ecuador, Gabon, Mozambique, Peru, Philippines, Republic of Congo, South Africa, Uganda, and United Arab Emirates have completed comprehensive KBA assessments and as many as half of KBAs may be missing in remaining countries.[73] Therefore, areas not identified as KBAs may still be important for biodiversity conservation.

Overlapping KBAs features were removed before running area-based analyses. This was then intersected with GADM v4.1 and EEZ to calculate the area of KBAs in each country. The KBA-GADM/EEZ layer was intersected with oil and gas blocks to calculate the area of KBAs overlapped by oil and gas blocks, and then summed by GADM/EEZ country boundary. The same steps were repeated with the mining concession layer.

In this analysis, unprotected KBAs are defined as any portion of a recognized KBA that is not within the boundaries of a Protected or Conserved Area included within the WDPCA. Unprotected KBAs may be partially protected or wholly unprotected; only the area outside of PCAs are defined as unprotected. An unprotected layer was created by using the difference tool on the WDKBA and WDPCA, and any areas of overlap were then removed. The unprotected KBA layer was then intersected with GADM v4.1 and EEZ to calculate the area of unprotected KBAs in each country. The unprotected KBA-GADM/EEZ layer was intersected with oil and gas blocks to calculate the area of unprotected KBAs overlapped by oil and gas blocks, and then summed by GADM/EEZ country boundary. The same steps were repeated with the mining concession layer.

Case Studies:

Layer Processing and Threat Analysis

Senegal

Protected and Conserved Areas (PCAs) and Key Biodiversity Areas (KBAs) were intersected with mining concessions and oil and gas blocks to calculate the area of these ecologically significant sites under threat from extractive activities. Oil and gas data include active production blocks as well as areas under multiple stages of exploration.

Cambodia

Protected and Conserved Areas (PCAs) were intersected with mining concessions and oil and gas blocks to calculate the area of these ecologically significant sites under threat from extractive activities. The undisturbed tropical forest cover area within PCAs was calculated by intersecting the JRC Tropical Moist Forest (TMF) cover product with the PCA layer using Zonal Histogram, and then summarizing the number of undisturbed forest pixels.

Additionally, the Okvau mining concession was intersected with the Phnom Prich Wildlife Sanctuary polygon, to calculate the overlap of the mine with the PCA. Land-use change from the mine was visualized using Planet imagery in 2020, and ESRI imagery in 2026.

Peru

Prior to calculating the areas of PIACI Reserves, oil and gas blocks, and logging concessions, duplicate and overlapping features were removed. The areas of overlap were calculated by intersecting PIACI Reserves with both the oil and gas, and logging layers, and the resulting areas of overlap were summed.

Forest cover within PIACI reserves were calculated by intersecting the JRC Tropical Moist Forest (TMF) cover product with PIACI reserves using Zonal Histogram, and then summarizing the number of undisturbed forest pixels.

Forest loss was calculated by intersecting the 2025 Global Forest Change Forest Loss Year dataset with PIACI reserves and the Peruvian Amazon. The area of forest loss within PIACI reserves was then divided by the total area of TMF within PIACI reserves to calculate the proportion of forest cover lost. The same calculation was repeated for areas outside PIACI reserves within the Peruvian Amazon, allowing forest loss within PIACI reserves to be compared with forest loss outside of them.

Papua New Guinea

Prior to calculating the areas of Customary Lands, PCAs, KBAs, and mining concessions, duplicate and overlapping features were removed. The areas of overlap were calculated by intersecting Customary Lands with the ETM mining layer. The resulting areas of overlap were summed. The ETM layer was defined by filtering the Earth Insight Minebase dataset to include only concessions of energy transition minerals including Copper, Nickel, Cobalt, Zinc, Bauxite, Titanium, Chromite.

Undisturbed tropical forest cover within ETM concessions was calculated by intersecting the JRC TMF cover product with ETM concessions using Zonal Histogram, and then summarizing the number of undisturbed forest pixels. These steps were repeated with the Customary Lands layer to calculate undisturbed forest within customary lands.

Customary Lands data for this analysis was developed by the World Resources Institute, but is likely an underrepresentation of customary lands in Papua New Guinea, where customary lands are estimated to cover 97% of the country.[74]

Western Australia

Prior to calculating the areas of native title lands, PCAs, KBAs, IMMAs, high-biodiversity and ecologically-representative areas (HBERAs), oil and gas blocks, and mining tenements, duplicate and overlapping features were removed. The areas of overlap were calculated by intersecting HBERAs, native title land, and IMMAs with the oil and gas or mining layers. The resulting areas of overlap were summed.

HBERAs were defined by reclassifying the Combined Biodiversity Values and Representativeness dataset (DCCEEW) areas to include criteria 0% - above 90% as HBERAs and excluded criterion 1 (0 - 49%). It is important to note that HBERAs exclude Protected Areas as a method of identifying areas of high biodiversity and ecological representativeness that may qualify for protection.

Overlaps with native title lands were calculated using only existing native titles. These were identified by filtering the National Native Title Determination Outcomes to include only outcomes where a native title exists (both exclusive and non-exclusive). Areas where native titles are not determined to exist but have traditionally been and continue to be used by Aboriginal Peoples may still be under threat of extraction.

Scott Reef was defined and visualised using the Coastal Water dataset (Geoscience Australia).

Congo Basin and Green Corridor

Forest loss in Congo Basin countries was calculated by intersecting the 2025 Global Forest Change Forest Loss Year data product with GADM v4.1. Forest loss pixels were summed by country and grouped into three time periods: 2001-2010, 2011-2020, and 2021-2025. PCAs shown on the map include Ramsar sites, but notably does not include the Kivu-Kinshasa Green Corridor which has not been submitted to the WDPCA.

Extractive threats to the Kivu-Kinshasa Green Corridor were calculated by intersecting oil and gas blocks, mining concessions, and logging concessions with the Green Corridor boundary. Undisturbed tropical forest cover within the Green Corridor was calculated by intersecting the JRC TMF cover product with the corridor boundary using Zonal Histogram, and then summarizing the number of undisturbed forest pixels.

Philippines

The Certificate of Ancestral Domain Title (CADT) layer was used to represent legally recognized Indigenous territories in the Philippines. Before calculating the areas of CADTs, duplicate and overlapping features were removed. CADTs were intersected with mining concessions and oil and gas blocks to calculate the area under threat from each extractive activity.

The CADT layer was also intersected with Key Biodiversity Areas (KBAs) and the JRC Tropical Moist Forest (TMF) cover product to quantify the total area of biodiversity importance and intact forest within CADT areas.

Petén, Guatemala

Forest loss was calculated by intersecting the 2025 Global Forest Change Forest Loss Year data product with ACOFOP forest concessions. This step was repeated for both the whole country and the Maya Biosphere Reserve to calculate and compare the forest loss for the same time period. Undisturbed tropical forest cover was calculated by intersecting the JRC TMF cover product with both the ACOFOP forest concessions and the Maya Biosphere reserve using Zonal Histogram, and then summarizing the number of undisturbed forest pixels.

Land-use change on the border of the forest concessions and within the Sierra de Lacandón National Park was visualized using Planet imagery in May 2026.

Colombian Amazon

This case study uses the Official Colombian Amazonian boundary, published by SINCHI, in line with Resolution 0961. Oil and gas blocks and mining concession layers were intersected with the Colombian Amazon layer. This step was repeated to only include unassigned oil and gas blocks and applications for mining concessions, in order to identify the areas directly affected by the Resolution. Unassigned oil and gas blocks and applications for mining concessions were also intersected with PCAs, KBAs, and IP, LC, and AD territories. Undisturbed tropical forest cover was calculated by intersecting the JRC TMF cover product with unassigned oil and gas blocks using Zonal Histogram, and then summarizing the number of undisturbed forest pixels.

Costa Rica

Prior to calculating the areas of Indigenous Territories, PCAs, KBAs, World Heritage Sites, and agriculture, duplicate and overlapping features were removed. The agriculture layer represents productive agriculture critical to Costa Rica's economy and includes Musaceae (bananas and plantains), coffee, oil palm, and pineapple crops based on datasets remotely sensed data from the Monitoring Land Use and Land Cover Change in Productive Landscapes (MOCUPP). These data were merged into a single agricultural data layer, and areas of overlap were removed. Overlap was calculated by intersecting the mining and agriculture layers with PCAs, PAs (Cat I-IV), KBAs, Indigenous Territories, and World Heritage Sites.

Data Sources:

Coral Reef: UNEP-WCMC, WorldFish Centre, WRI, TNC (2021). Global distribution of warm-water coral reefs, compiled from multiple sources including the Millennium Coral Reef Mapping Project. Version 4.1. Includes contributions from IMaRS-USF and IRD (2005), IMaRS-USF (2005) and Spalding et al. (2001). Cambridge (UK): UN Environment World Conservation Monitoring Centre. Data DOI: https://doi.org/10.34892/t2wk-5t34

Exclusive Economic Zone: Flanders Marine Institute (2023). Maritime Boundaries Geodatabase, version 12. Available online at https://www.marineregions.org/. https://doi.org/10.14284/628

GADM 4.1: GADM (2022). Database of Global Administrative Areas (GADM v. 4.1). Available at https://gadm.org/data.html#google_vignette

Global Forest Change Forest Loss Year: Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend. 2013. "High-Resolution Global Maps of 21st-Century Forest Cover Change." Science 342 (15 November): 850-53. 10.1126/science.1244693 Data available on-line at: https://glad.earthengine.app/view/global-forest-change.

JRC Tropical Moist Forest: C. Vancutsem, F. Achard, J.-F. Pekel, G. Vieilledent, S. Carboni, D. Simonetti, J. Gallego, L.E.O.C. Aragão, R. Nasi. (2021). Long-term (1990-2019) monitoring of forest cover changes in the humid tropics. Science Advances

KBAs: BirdLife International (2026). The World Database of Key Biodiversity Areas. Developed by the KBA Partnership: BirdLife International, International Union for the Conservation of Nature, Amphibian Survival Alliance, Conservation International, Critical Ecosystem Partnership Fund, Global Environment Facility, Re:wild, NatureServe, Rainforest Trust, Royal Society for the Protection of Birds, Wildlife Conservation Society and World Wildlife Fund. Available at www.keybiodiversityareas.org.

Mangrove: Giri C, Ochieng E, Tieszen LL, Zhu Z, Singh A, Loveland T, Masek J, Duke N (2011). Status and distribution of mangrove forests of the world using earth observation satellite data (version 1.3, updated by UNEP-WCMC). Global Ecology and Biogeography 20: 154-159. Paper DOI: 10.1111/j.1466-8238.2010.00584.x . Data DOI: https://doi.org/10.34892/1411-w728 Data URL: http://data.unep-wcmc.org/datasets/4

Mining Concessions: Minebase (2026) Earth Insight; Australia: Government of Western Australia (Department of Mines, Petroleum and Exploration); Bolivia: Ministry of Planning and Development; Brazil:National Mining Agency; Colombia: National Mining Agency; Ecuador: Ministry of Environment and Energy; Peru: Geological, Mining, and Metallurgical Institute; Suriname: RAISG, Guyana: Geology and Mines Commission; Venezuela: RAISG; Costa Rica: Department of Geology and Mining; Guatemala: Ministry of Energy and Mines; Honduras: Ministry of Energy, Natural Resources,

Environment and Mines; Nicaragua: General Directorate of Mines; Panama: Ministry of Commerce and Industry; Mexico: General Directorate of Mines; Equatorial Guinea: Ministry of Mines and Hydrocarbons;, Senegal: Department of Mines and Geology; Philippines: Mines and Geosciences Bureau; Papua New Guinea: Mineral Resources Authority ; Indonesia: Auriga Nusantara; Cambodia: OpenDevelopment Cambodia; Malaysia: Rimba Watch; Myanmar: Myanmar Extractive Industries Transparency Initiative - MEITI; Democratic Republic of Congo: CongoMines; Global Forest Watch; the Republic of Congo, the Central African Republic, Gabon, Cameroon: Global Forest Watch.

Oil and Gas Blocks: Oilbase (2026) Earth Insight; Australia: Australian Government (National Offshore Petroleum Titles Administrator) and the Government of Western Australia (Department of Mines, Petroleum and Exploration); Bolivia:Yacimientos Petrolíferos Fiscales Bolivianos (YPFB); Brazil: Agência Nacional do Petróleo, Gás Natural e Biocombustíveis; Colombia: Agencia Nacional de Hidrocarburos de Colombia; Ecuador:Ministerio de Energía y Minas; French Guiana: Staatsolie; Guyana: Petroleum Management Programme, Ministry of Natural Resources; Peru: PeruPetro; Suriname: Staatsolie; Venezuela: Provita; Belize: Ministry of Natural Resources, Petroleum, and Mining; Guatemala: Ministry of Energy and Mines; Honduras: Secretariat of Energy; Mexico: Secretariat of Energy; Nicaragua: Ministry of Energy and Mines; Central African Republic: Ministry of Mines and Geology; Cameroon: National Hydrocarbons Corporation; Democratic Republic of the Congo: Ministry of Hydrocarbons; Republic of the Congo: Ministry of Hydrocarbons; Gabon: Ministry of Petroleum and Gas; Equatorial Guinea: Ministry of Mines and Hydrocarbons; Senegal: Ministry of Energy and Petroleum; Brunei: Asia Maritime Transparency Initiative; Indonesia: Ministry of Energy and Mineral Resources, Auriga Nusantara; Cambodia: Ministry of Mines and Energy, OpenDevelopment Cambodia; Myanmar: Ministry of Energy, Myanmar Oil and Gas Enterprise; Malaysia: PETRONAS; Philippines: Department of Energy; Papua New Guinea: Department of Petroleum and Energy, World Resources Institute; Thailand: Ministry of Energy Department of Mineral Fuels, OpenDevelopment Thailand; Timor-Leste: Ministry of Petroleum and Mineral Resources; Vietnam: Ministry of Industry and Trade.

PAs: UNEP-WCMC and IUCN (2026), Protected Planet: The World Database on Protected Areas (WDPA) and World Database on Other Effective Area-based Conservation Measures (WD-OECM) [Online], September 2026, Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net.

Planet Satellite Imagery: Planet Team (2026). Planet Application Program Interface: In Space for Life on Earth. San Francisco, CA. https://api.planet.com.

Seagrass: UNEP-WCMC, Short FT (2021). Global distribution of seagrasses (version 7.1). Seventh update to the data layer used in Green and Short (2003). Cambridge (UK): UN Environment World Conservation Monitoring Centre. Data DOI: https://doi.org/10.34892/x6r3-d211

Case Study Specific Data

Peru

- Logging Concessions: AIDESEP (2025) and Servicio Nacional Forestal y de Fauna Silvestre (2025)
- PIACI Reserves: AIDESEP (2025)

Papua New Guinea

- Customary Lands: World Resources Institute. 2024. Indicative customary lands via LandMark. (2025). LandMark: The Global Platform of Indigenous and Community Lands. Available at https://landmarkmap.org/data-methods/access-data

Western Australia

- High Biodiversity and Ecological Representativeness Areas: Department of Climate Change, Energy, the Environment and Water. 2022. Combined: Biodiversity values and representativeness v1. https://fed.dcceew.gov.au/documents/6510ec40d81c43cda8d44e86b81adce2/about.
- Important Marine Mammal Areas: IUCN MMPATF (2025) Global Dataset of Important Marine Mammal Areas (IUCN-IMMA). February 2025. Made available under agreement on terms of use by the IUCN Joint SSC/WCPA Marine Mammal Protected Areas Task Force and made available at www.marinemammalhabitat.org/imma-eatlas.
- Native Title Lands: National Native Title Tribunal. © Commonwealth of Australia (2026). Native Title Determination Outcomes. https://www.nntt.gov.au/assistance/geospatial/spatial-data/geodocs.
- Petroleum Wells: © Commonwealth of Australia (Department of Industry) [2026], NOPTA, Petroleum Wells. https://www.nopta.gov.au/
- Scott Reef: Coastal Waters State and Northern Territory Powers Act 1980 - Area. https://www.ga.gov.au. by Geoscience Australia which is © Commonwealth of Australia and is provided under a Creative Commons Attribution 4.0 International Licence and is subject to the disclaimer of warranties in section 5 of that licence.

Congo Basin

- Green Corridor: B4Life 2.0 Facility (2025). Kivu to Kinshasha Green Corridor Reserve. Available upon request.
- Logging Concessions: DRC Ministry of Environment and Sustainable Development (MEDD) (2025)
- PROBA-V Forest Cover (for visualization): Buchhorn, M.; Smets, B.; Bertels, L.; Lesiv, M.; Tsendbazar, N.-E.; Masiliunas, D.; Linlin, L.; Herold, M.; Fritz, S. (2020). Copernicus Global Land Service: Land Cover 100m: Collection 3: epoch 2019: Globe (Version V3.0.1) [Data set]. Zenodo. DOI: 10.5281/zenodo.3939050

Philippines

- CADTs: Certificate of Ancestral Domain Title. (2014). National Commission on Indigenous Peoples

Petén, Guatemala

- ACOFOP concessions: Alianza de Pueblos y Bosques (2024)

Colombian Amazon

- Colombian Amazon: Instituto Amazónico de Investigaciones Científicas (SINCHI) (2025). Límite de la Amazonia Colombiana Escala 1:100,000. Available from https://www.datos.gov.co/dataset/L-mite-de-la-Amazonia-colombiana-Escala-1-100-000/ybxs-58zd/about_data
- IP, LC, AD lands: Agencia Nacional de Tierras (2026). Resguardos Indigenas, Consejos Comunitarios, Zonas de Reserva Campesina [Data sets] Available at https://data-agenciadetierras.opendata.arcgis.com/

Costa Rica

- Agriculture: MOCUPP (2022). Monitoring of Land Use Change within Production Landscapes - Coffee. Available at https://www.snitcr.go.cr/ico_servicios_ogc_info?k=bm9kbzo6MTc0&nombre=MOCUPP%20-%20Caf%C3%A9; MOCUPP (2019). Monitoring of Land Use Change within Production Landscapes - Palm oil. Available at https://www.snitcr.go.cr/ico_servicios_ogc_info?k=bm9kbzo6NTY=&nombre=MOCUPP%20Palma ; MOCUPP (2019). Monitoring of Land Use Change within Production Landscapes - Pineapple. Available at https://www.snitcr.go.cr/ico_servicios_ogc_info?k=bm9kbzo6MTY=&nombre=MOCUPP%20Pi%C3%B1a ; MOCUPP (2022). Monitoring of Land Use Change within Production Landscapes - Musaceas. Available at https://geoportal.ucr.ac.cr/geoserver/mocupp_musaceas/wfs
- Indigenous Territories: El Observatorio del Desarrollo, Universidad de Costa Rica. 2008. Atlas digital de los pueblos indigenas. Universidad de Costa Rica via LandMark. (2025). LandMark: The Global Platform of Indigenous and Community Lands. Available at https://landmarkmap.org/data-methods/access-data
- World Heritage Site: UNEP-WCMC and IUCN (2026), Protected Planet: The World Database on Protected Areas (WDPA) and World Database on Other Effective Area-based Conservation Measures (WD-OECM) [Online], September 2026, Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net

Glossary

Defining Conservation Areas and Important Areas for Conservation

At the heart of area-based conservation efforts and KMGBF Target 3 are protected and conserved areas (PCAs) which include both protected areas (PAs) and Other Effective Area-Based Conservation Measures (OECMs). When effectively governed and managed, these areas provide some of the strongest demonstrated contributions to biodiversity conservation of any conservation intervention. However, existing PCAs do not capture the full range of landscapes and seascapes that are important for maintaining biodiversity and ecosystem integrity. This report therefore considers threats and pathways for high-integrity 30x30 implementation in both existing PCAs and a broader set of important areas for conservation that may not enjoy formal conservation designation. These include Key Biodiversity Areas (KBAs), Indigenous Territories (ITs), and high-integrity ecosystems such as Intact Forest Landscapes. The following glossary is intended to provide clear and specific definitions for key terms used in this report.

Key Definitions / Glossary

Protected and Conserved Areas (PCAs)

Protected and Conserved Areas (PCAs) include both Protected Areas (PAs) and Other Effective Area-Based Conservation Measures (OECMs). Protected areas are geographically defined areas that are designated and managed to achieve the long-term conservation of nature through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.[1] OECMs are defined by the Convention on Biological Diversity as geographically defined areas other than Protected Areas, which 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, socio-economic, and other locally relevant values.[2]

High-Integrity 30x30 Implementation:

The implementation of GBF Target 3 in a manner that is effective, equitable, and durable, ensuring that protected and conserved areas remain free from threats including extractive and other incompatible large-scale industrial activities.

Key Biodiversity Areas (KBAs)

Key Biodiversity Areas are sites that contribute significantly to the global persistence of biodiversity. Identified using internationally recognized scientific criteria, KBAs include habitats critical for threatened species, endemic species, ecological communities, and important biological processes. They represent the most comprehensive global network of areas of particular importance for biodiversity.[3]

Unprotected Key Biodiversity Areas

Unprotected Key Biodiversity Areas are recognized KBAs that are not under any form of protected or conserved area management. Unprotected KBAs may be partially protected or wholly unprotected; only the area outside of PCAs are defined as unprotected for the purpose of this report.

Ecological Integrity

Ecological integrity refers to the degree to which an ecosystem remains intact, functional, and resilient. Ecosystems with high ecological integrity retain their native species, ecological processes, and natural patterns with minimal human disturbance. Maintaining ecological integrity is essential for supporting biodiversity, ecosystem services, climate resilience, and long-term conservation outcomes.

Effectiveness (of Protected and Conserved Areas)

Conservation effectiveness refers to the extent to which a protected or conserved area achieves its biodiversity conservation objectives. Effective areas are not only legally designated but are also adequately governed, managed, monitored, and resourced, while remaining largely free from significant pressures and threats that could undermine conservation outcomes.[4]

Glossary sources

1. Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. x + 86pp. WITH Stolton, S., P. Shadie and N. Dudley (2013). IUCN WCPA Best Practice Guidance on Recognising Protected Areas and Assigning Management Categories and Governance Types, Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland: IUCN.
2. CBD (2018). Protected areas and other effective area-based conservation measures (Decision 14/8). https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-08-en.pdf
3. IUCN (2016). A Global Standard for the Identification of Key Biodiversity Areas, Version 1.0. First edition. Gland, Switzerland: IUCN.
4. Klimmek, H., Bingham, H. C., Burgess, N. D., Mejia Cortez, P., Beguignet, M., Dudley, N., Huertas Garcia, M., Garstecki, T., Geldmann, K., Howland, W., Lefebvre, T., Rao, M., Salafsky, N., Stolton, S., Wells, S. (2026). Protected and Conserved Area Effectiveness - Introducing an enhanced framework for reporting data to protected planet. Parks 32(1). https://doi.org/10.2305/FNYD5476

GLOSSARY

Endnotes

1 Global Alliance of Territorial Communities (GATC) and Earth Insight. (2025). Indigenous Territories and Local Communities on the Frontlines. Available at: https://earth-insight.org/report/iplc-threats/

2 Secretariat of the Convention on Biological Diversity. (2026, July 27). *Global review of collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework*. https://www.cbd.int/gbf/implementation/globalreview

3 Shen, X., Liu, M., Hanson, J.O., Wang, J., Locke, H., Watson, J.E., ... & Ma, K. (2023). Countries' differentiated responsibilities to fulfill area-based conservation targets of the Kunming-Montreal Global Biodiversity Framework. *One Earth, 6*(5), 548-559.

4 Secretariat of the Convention on Biological Diversity. Global Review of KMGBF.

5 United Nations Environment Programme. (2026). *State of finance for nature 2026: Nature in the red: Powering the trillion dollar nature transition economy*. https://www.unep.org/resources/state-finance-nature-2026

6 Simkins, A.T., Beresford, A., Buchanan, G., Crowe, O., Elliot, W., Izquierdo, P., Patterson, D. and Butchart, S.H.M. (2023) A global assessment of the prevalence of current and potential future infrastructure in Key Biodiversity Areas. *Biol. Conserv.* https://doi.org/10.1016/j.biocon.2023.109953

7 Cole, J.R., & Johnson, C.A. (2025). Not all protected areas are created equal: quality vs quantity in the quest to achieve 30×30. *Biodiversity and Conservation, 34*(12), 4189-4212.

8 Jonas, H.D., Ahmadia, G.N., Bingham, H.C., Briggs, J., Butchart, S.H.M., Cariño, J., Chassot, O., Chaudhary, S., Darling, E., DeGemmis, A., Dudley, N., Fa, J.E., Fitzsimons, J., Garne, S., Geldmann, J., Golden Kroner, R., Gurney, G.G., Harrington, A.R., Himes-Cornell, A., von Weizsäcker, C. (2021). Equitable and effective area-based conservation: Towards the conserved areas paradigm. PARKS, 27(1), 5-14.

9 To date only Bolivia, Canada, Colombia, DRC, Ecuador, Gabon, Mozambique, Peru, Philippines, Republic of Congo, South Africa, Uganda, and United Arab Emirates have completed comprehensive KBA assessments. As many as half of KBAs may be missing in remaining countries

10 Finer M, Mamani N, Arinez A, Novoa S, Larrea-Alcázar D, Villa J (2023). *Illegal Gold Mining Across the Amazon.* MAAP: 197.

11 Scanes, C.G. (2018). Human activity and habitat loss: destruction, fragmentation, and degradation. In *Animals and human society* (pp. 451-482). Academic Press.

12 International Union for Conservation of Nature. (2020). *Avoiding the point of no return in the Amazon: Protecting 80% by 2025* (WCC-2020-Res-129).

13 International Union for Conservation of Nature. (2025). *Emergency action to restore 80% of ecological integrity in Amazonia by 2030, preventing cascading tipping points* (2025 IUCN Resolution 067).

14 International Union for Conservation of Nature. (2025). *Avoiding irreversible ecological damage and tipping points in the Congo Basin: Urgent assessment and protective measures* (2025 IUCN Resolution 137).

15 Dudley, N., Jonas, H., Nelson, F., Parrish, J., Pyhälä, A., Stolton, S., & Watson, J.E. (2018). The essential role of other effective area-based conservation measures in achieving big bold conservation targets. *Global ecology and conservation*, *15*, e00424.

16 Barbarossa, V., Schipper, A.M., Andringa, I., van Oorschot, M., Sonter, L.J., & Marques, A. (2026). The Many Pathways of Mining Impacts on Biodiversity. *Conservation Letters*, *19*(1),

17 Cooley, S.R., & Schoeman, D.S. (2022). Oceans and coastal ecosystems and their services. In H.-O. Pörtner et al. (Eds.), *Climate change 2022: Impacts, adaptation and vulnerability* (pp. 379–550). Cambridge University Press.

18 International Union for Conservation of Nature. (2016). *Protected areas and other areas important for biodiversity in relation to environmentally damaging industrial activities and infrastructure development* (WCC 2016 Rec 102). https://portals.iucn.org/library/sites/library/files/resrecfiles/wcc_2016_rec_102_en.pdf

19 Adams, V. M., Visconti, P., Graham, V., Possingham, H. P. (2021). Indicators keep progress honest: A call to track both the quantity and quality of protected areas. *One Earth. 4.* https://doi.org/10.1016/j.oneear.2021.06.014

20 Mathieu, G., Taïbou, B. A., & Aminata, D. S. (2018). Biodiversity in Senegal: terrestrial ecosystems flora and Great Fauna. *Glob Biodiver Sel Count Afr*, *3*, 173.

21 Senegal has established a KBA National Coordination Group and plans to update its KBA network. To date, most KBA sites in Senegal are IBAS and therefore only identified for birds

22 World Bank. (2026). *Senegal*. World Bank Group. https://www.worldbank.org/ext/en/country/senegal#tab-economy

23 Ba, I. et al. (2026). Hydrodynamic connectivity and potential pollution exposure of Marine Protected Areas: Implications for coastal management in Senegal. *Ocean and Coastal Management 281.* https://doi.org/10.1016/j.ocecoaman.2026.108331

24 WWF-Canada (2026). Overview: Unearthing the State of Knowledge about the impacts of mineral exploration activities. Toronto.https://wwf.ca/impacts-of-mineral-exploration-activities

25 Milne, S. and Mahanty, S. (eds) (2015). *Conservation and Development in Cambodia: Exploring frontiers of change in nature, state, and society*. Routledge.

26 Emerald Resources NL (2020, January 24). 'Successful A$75 million Share Placement for the Okvau Gold Project'. https://announcements.asx.com.au/asxpdf/20200124/pdf/44dhbywyhw2n2z.pdf

27 Amarthalingam, S. (2022, May 18). *'Everything changed': Cambodia's gold rush weighs on Indigenous livelihoods*. Voice of Democracy. https://vodenglish.news/everything-changed-cambodias-gold-rush-weighs-on-indigenous-livelihoods/

28 Morgan Hart (2026, April 17). 'Emerald Resources Establishes a New Standard in Cambodian Mining.' *The Report Company.* https://www.the-report.com/reports/cambodia/newsweek/emerald-resources/

29 Transformative Pathways. (2023). *Indigenous Peoples and the Kunming-Montreal Biodiversity* https://transformativepathways.net/indigenous-peoples-and-the-kunming-montreal-biodiversity-agreement/

30 30x30 Solutions. (2025). *Recognising Indigenous and traditional territories*. https://www.30x30.solutions/recognising-indigenous-and-traditional-territories/

31 Earth Insight and GATC. IPs and LCs Frontlines.

32 Flemmer, R. & Schilling-Vacaflor, A. (2016). Unfulfilled promises of the consultation approach: the limits to effective indigenous participation in Bolivia's and Peru's extractive industries. *Third World Quarterly, 37(1).* https://doi.org/10.1080/01436597.2015.1092867

33 Bellamy, P. (2023). Free, Prior Informed Consent and Extractive Industry: Indigenous Action Is the Past, Present, and Future of Global Environmental Justice. Barry L. Env't & Earth LJ, *13*, 105.

34 Ipara, A., & Salmang, A. (2025). *Understanding customary land access in Papua New Guinea: Key considerations and challenges*. Pacific Legal Network. https://www.pln.com.pg/single-post/understanding-customary-land-access-in-papua-new-guinea-key-considerations-and-challenges

35 IUCN (2016). A Global Standard for the Identification of Key Biodiversity Areas, Version 1.0. First edition. Gland, Switzerland: IUCN.

36 Allison, S. K. (2023). Ecological restoration and environmental change: renewing damaged ecosystems. Taylor & Francis.

37 Western Australia Department of Mines, Petroleum and Exploration. (2026). *Economic indicators*. Government of Western Australia. https://www.wa.gov.au/organisation/department-of-mines-petroleum-and-exploration/economic-indicators

38 Burton, J., Kemp, D., Barnes, R., & Parmenter, J., (2024). Mapping critical minerals projects and their intersection with Indigenous peoples' land rights in Australia. Energy Research and Social Science, 113. https://doi.org/10.1016/j.erss.2024.103556.

39 Morton, A. (2024, July 27). Australia's north-west reefs teem with life – but they are also at the centre of a massive fossil fuel expansion. The Guardian. https://www.theguardian.com/environment/article/2024/jul/28/scott-reef-australia-drilling-plan-oil-gas-woodside-lng-north-west-shelf

40 Ewane, E.B. (2022). How much deforestation in the Congo Basin can cause the hydrological cycle to degrade to a tipping point? *Academia Letters,* 5040.

41 Kivu Kinshasa Green Corridor (2026). https://kivukinshasagreencorridor.org/

42 International Institute for Sustainable Development. (2026). *Drawing the line and holding it: What existing moratoria, bans, and restrictions reveal about transitioning away from fossil fuels*. https://www.iisd.org/system/files/2026-03/existing-moratoria-bans-restrictions-fossil-fuels-database.xlsx

43 A Rocha Ghana. (2025). *Commendations to Government for revoking L.I. 2462; Time to restore and enhance forest management and services to Ghanaians* [Press release]. https://ghana.arocha.org/wp-content/uploads/sites/42/2025/12/PRESS-STATEMENT-LI2462-DEC-2025.pdf

44 International Institute for Sustainable Development. Drawing the line

45 *Fossil Free Zones*. (n.d.). Fossil Free Zones. https://fossilfreezones.org/

46 The KBA Partnership (2018) Guidelines on Business and KBAs: Managing Risk to Biodiversity. Gland: IUCN. https://admin.keybiodiversityareas.org/sites/default/files/2025-10/2018-005-En_Guidelines%20on%20Business%20and%20KBAs.pdf?utm_source

47 Fisheries and Oceans Canada. (2017, June 24). Laurentian Channel Marine Protected Area Regulations [Proposed Regulations and Regulatory Impact Analysis Statement]. Canada Gazette, Part I, 151(25). Government of Canada. https://gazette.gc.ca/rp-pr/p1/2017/2017-06-24/html/reg2-eng.html

48 RRI. (2023). Who Owns the World's Land? Global State of Indigenous, Afro-descendant, and Local Community Land Rights Recognition from 2015–2020. https://rightsandresources.org/publication/who-owns-the-worlds-land-2nd-ed/

49 Global Alliance of Territorial Communities. (2025). Brazzaville Declaration: Our commitment to peoples, our territories, planet, and partnership: A unified path to COP30 and beyond. https://globalalliance.me/wp-content/uploads/2025/06/EN_Brazzaville-Declaration-GATC_06-25-2025.pdf

50 Tauli-Corpuz, V., Alcorn, J., Molnar, A., Healy, C., & Barrow, E. (2020). Cornered by PAs: Adopting rights-based approaches to enable cost-effective conservation and climate action. World Development, 130, 104923.

51 Forest Peoples Programme. (2025). From experience to policy: Strategic exchange between Indigenous Peoples and local communities on Target 3. https://www.forestpeoples.org/fileadmin/uploads/fpp/Photos/Reports/2025_ConservationPathways/From_experience_to_policy.pdf

52 Global Alliance of Territorial Communities. Brazzaville Declaration

53 Global Alliance of Territorial Communities. Brazzaville Declaration

54 United Nations Environment Programme World Conservation Monitoring Centre. (2020). *Megadiverse countries*. Biodiversity A-Z. https://www.biodiversitya-z.org/content/megadiverse-countries

55 McMurry, N. (2022). From recognition to integration: Indigenous autonomy, state authority, and national identity in the Philippines. *American Political Science Review, 116(2).* doi: 10.1017/S0003055421001039

56 Hodgdon, B.D., Hughell, D., Ramos, V.H., & Balas McNab, R. (2015). *Deforestation trends in the Maya Biosphere Reserve, Guatemala: 2000–2013*. Rainforest Alliance. https://www.rainforest-alliance.org/wp-content/uploads/2021/07/MBR-Deforestation-Trends.pdf

57 Gómez, Ileana, and V. Ernesto Méndez. Association of forest communities of Petén, Guatemala: Context, accomplishments and challenges. *CIFOR-PRISMA* (2007).

58 Barsimantov, J., Racelis, A., Biedenweg, K., & DiGiano, M. (2011). When collective action and tenure allocations collide: Outcomes from community forests in Quintana Roo, Mexico and Petén, Guatemala. *Land Use Policy, 28*(1), 343-352.

59 AMPB. (2021, October 23). *Concesiones comunitarias de Petén firman prórroga de 25 años y adjudicación de dos nuevas Unidades de Manejo.* https://www.alianzamesoamericana.org/en/concesiones-comunitarias-de-Petén-firman-prorroga-de-25-anos-y-adjudicacion-de-dos-nuevas-unidades-de-manejo/

60 Leadley, P., Gonzalez, A., Obura, D., Krug, C.B., Londoño-Murcia, M.C., Millette, K.L., et al. (2022). Achieving global biodiversity goals by 2050 requires urgent and integrated actions. *One earth, 5*(6), 597-603.

61 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. (2024). *Thematic assessment report on the underlying causes of biodiversity loss and the determinants of transformative change and options for achieving the 2050 Vision for Biodiversity* (K. O'Brien, L. Garibaldi, & A. Agrawal, Eds.). IPBES Secretariat. https://doi.org/10.5281/zenodo.11382215

62 Earth Insight, IISD, OPIAC. (2025). Oil and Gas Expansion in the Colombian Amazon: Navigating Risks, Economics, and Pathways to a Sustainable Future. https://earth-insight.org/report/colombian-amazon-oil-gas/

63 Protected Planet; UNEP-WCMC (2026). Protected Area Profile for Costa Rica from the World Database on Protected Areas, August 2026.https://www.protectedplanet.net/country/CRI

64 Weber, S. & Buckingham, K. (2016, August 3). 'How Brazil, Panama, and Costa Rica Breathed New Life into Their Degraded Lands.' WRI. https://www.wri.org/insights/how-brazil-panama-and-costa-rica-breathed-new-life-their-degraded-lands

65 OECD. (2023). *OECD Environmental Performance Reviews: Costa Rica 2023*. OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/10/oecd-environmental-performance-reviews-costa-rica-2023_b60596af/ec94fd4e-en.pdf

66 United Nations Development Programme. (n.d.). *Costa Rica*. Biodiversity Finance Initiative (BIOFIN). https://www.biofin.org/costa-rica

67 UNESCO World Heritage Committee. (2016). *Decisions of the World Heritage Committee 37 COM 7 and 40 COM 7*. UNESCO World Heritage Centre. https://whc.unesco.org/en/compendium/224

68 UNESCO, & International Union for Conservation of Nature. (2023). *World heritage: A unique contribution to biodiversity conservation* (CLT/WHC/NHU/2023/BRO/14). https://doi.org/10.58337/LSRE8424

69 Many countries have not updated their KBA networks by applying the criteria to all species and ecosystems, meaning at least half of their KBA sites are likely missing where they have not undergone review.

70 Elsen P.R., Monahan W.B., Merenlender A.M. (2018, Sept). Reply to You et al.: The World Database on Protected Areas is an invaluable resource for global conservation assessments and planning. Proc Natl Acad Sci, 115(39) doi: 10.1073/pnas.1813791115.

71 Plumptre, A.J., Waliczky, Z., Baisero, D., Crowe, O., Kivono, J., Tobar, C., Toscano, M.G., Boulad, N., Costa, H., Davila, C., Dirou, S., Duarte, E., Fierro, K., Castellanos-Castro, C., Haddad, H., Holness, S., Maisels, F., Marnewick, D., Mbende, M., Al Mheiri, M.A., Moundzoho, D., Nampindo, S., Nangendo, G., Ngama, S., Numa, C., Peñaranda, D., Rijal, S., Sánchez-Nivicela, M., Skowno, A., Starnes, T., Texier, N., von Staden, L., Bowser, A., Brooks, T., Bunting, G., Butchart, S.H.M., Cox, N., Elliot, W., Gilbert, J., Langhammer, P., Langrand, O., Neugarten, R., Rao, M., Rodriguez, J.P., Ray, J., della Togna, G., Upgren, A. & Woodley, S. (2025) Changes in Key Biodiversity Area networks following national comprehensive assessments. Conservation Biology, 2026;40:e70151. http://doi.org/10.1111/cobi.70151

72 KBA Standards and Appeals Committee (2020). Guidelines for using A Global Standard for the Identification of Key Biodiversity Areas. Version 1.1. Prepared by the KBA Standards and Appeals Committee of the IUCN Species Survival Commission and IUCN World Commission on Protected Areas. Gland, Switzerland: IUCN. https://portals.iucn.org/library/sites/library/files/documents/2020-033-En.pdf

73 Plumptre, A.J., Waliczky, Z., Baisero, D., Crowe, O., Kivono, J., Tobar, C., Toscano, M.G., Boulad, N., Costa, H., Davila, C., Dirou, S., Duarte, E., Fierro, K., Castellanos-Castro, C., Haddad, H., Holness, S., Maisels, F., Marnewick, D., Mbende, M., Al Mheiri, M.A., Moundzoho, D., Nampindo, S., Nangendo, G., Ngama, S., Numa, C., Peñaranda, D., Rijal, S., Sánchez-Nivicela, M., Skowno, A., Starnes, T., Texier, N., von Staden, L., Bowser, A., Brooks, T., Bunting, G., Butchart, S.H.M., Cox, N., Elliot, W., Gilbert, J., Langhammer, P., Langrand, O., Neugarten, R., Rao, M., Rodriguez, J.P., Ray, J., della Togna, G., Upgren, A. & Woodley, S. (2025) Changes in Key Biodiversity Area networks following national comprehensive assessments. Conservation Biology, 2026;40:e70151. http://doi.org/10.1111/cobi.70151

74 Forest Peoples Programme. (2011, April 14). 'UN human rights bodies take note of massive land speculation in Papua New Guinea.' Forest Peoples Programme. https://www.forestpeoples.org/fr/publications-resources/news/article/un-human-rights-bodies-take-note-of-massive-land-speculation-in-papua-new-guinea/

ENDNOTES



Earth Insight

www.earth-insight.org | info@earth-insight.org