A GLOBAL ASSESSMENT OF REPORTED RESTORATION IMPLEMENTATION, GAPS, AND PATHWAYS FORWARD

Global Land Restoration Achievement Database: 2026 Report



IUCN

Muneeswaran Mariappan and Camille Lau

Authors

Muneeswaran Mariappan and Camille Lau

International Union for Conservation of Nature (IUCN), Switzerland

Corresponding Author

Muneeswaran Mariappan*

Acknowledgements

The development of the Global Restoration Achievements Database was made possible through the financial support and strategic guidance of the G20 Global Land Initiative. Their commitment to advancing global restoration monitoring and accountability has been instrumental in enabling this work.

The authors also express their sincere appreciation to the IUCN's Global Forest and Grassland Team for its continued support in strengthening restoration reporting, particularly in relation to Bonn Challenge processes. Their technical inputs and coordination have contributed significantly to the development of this analysis.

Executive Summary

The Global Restoration Achievements Database provides the first structured, comparable synthesis of reported restoration implementation across countries, addressing a critical gap between global restoration commitments and measurable outcomes. While global pledges now exceed one billion hectares, verified implementation remains limited and unevenly documented.

Based on officially reported data submitted through national and international frameworks, the analysis identifies approximately 124.3 million hectares of land globally under restoration, rehabilitation, or improved management. This figure represents a conservative and harmonised baseline, derived from validated national reporting sources and subject to strict inclusion and non-overlap criteria. It should be interpreted as a lower-bound estimate of global restoration progress.

The analysis reveals significant variation across reporting frameworks. Land Degradation Neutrality reporting under the UNCCD accounts for the largest share of documented achievements, reflecting its structured monitoring architecture and outcome-oriented indicators. Contributions from Nationally Determined Contributions under the UNFCCC and Bonn Challenge reporting are substantial but less consistently quantified. In contrast, biodiversity reporting under the Convention on Biological Diversity remains comparatively limited in area-based reporting due to methodological and institutional constraints.

Regionally, restoration implementation is concentrated in a limited number of geographies, with Sub-Saharan Africa accounting for the largest share of reported achievements. Across all regions, however, the proportion of achieved restoration relative to pledged commitments remains low, indicating a substantial implementation gap.

To contextualise these findings, the report situates official achievements within a broader "restoration implementation continuum." Institutionally aggregated datasets and platform-based systems indicate substantially higher levels of reported activity, but these are not directly comparable due to differences in definitions, validation processes, and reporting standards. This divergence highlights a systemic disconnect between reported activity and verified achievement.

The analysis identifies four key constraints limiting the translation of commitments into measurable outcomes: fragmented reporting systems, lack of standardised methodologies, weak integration between project-level platforms and national reporting, and limited monitoring capacity. Addressing these constraints will require strengthened national monitoring systems, improved data harmonisation, clearer definitional alignment, and enhanced integration across reporting frameworks.

The Global Restoration Achievements Database is designed as an operational tool to support this transition. Providing a transparent and standardised evidence base enables governments, researchers, and international organisations to assess progress, identify gaps, and prioritise action. It contributes directly to tracking global targets under the Kunming–Montreal Global Biodiversity Framework, the UN Decade on Ecosystem Restoration, and related reporting processes under the UNCCD and UNFCCC.

Scope and Interpretation

This analysis is based on officially reported data and selected government-endorsed sources that align with international reporting frameworks, including submissions to the UNCCD, the Kunming–Montreal Global Biodiversity Framework, and related processes. As such, the findings reflect the availability, consistency, and comparability of reported information within these frameworks.

The results presented do not constitute a comprehensive assessment of all restoration activities undertaken by countries. In many cases, additional restoration actions may be implemented at national or subnational levels but are not captured in international reporting channels or are reported using non-harmonised methodologies.

Differences in reported performance across countries may therefore reflect variations in reporting practices, data availability, and methodological alignment, rather than actual differences in the scale or effectiveness of restoration efforts. The database prioritises consistency and comparability of reported data and should be interpreted as an indicative, rather than exhaustive, representation of global restoration progress.

Data Sources and Update Note

The restoration commitment data reported in this analysis are derived from publicly available sources and compiled using the methodology described in this report. The database was last updated on 20 March 2026 and will be updated periodically. For inquiries regarding the data or to provide updated information, please contact muneeswaran.mariappan@iucn.org.

Disclaimer

The analysis only covers data and information that were publicly available online as of January 2026. Reported figures, analyses and country-level estimates are based on currently available information and may be revised as additional data, validation and official updates become available. Future editions of the database are expected to improve data coverage and incorporate newly reported restoration achievements. Should you have any questions about the data reported here or wish to provide updated data, please contact muneeswaran.mariappan@iucn.org.

Copyright: © IUCN, International Union of Nature and Natural Resources

1.0 Database for Global Restoration Achievement 2026 Report

Rationale and Purpose

This technical note outlines the rationale, purpose, and context behind the creation of the Global Restoration Achievements Database. Building upon the foundation established by the Global Restoration Commitments Database 2024, which is funded by G20 Initiatives and developed by IUCN, this initiative aims to bridge the critical gap between restoration pledges and their actual implementation. While the commitments database consolidated global pledges under frameworks such as the Bonn Challenge, Land Degradation Neutrality (LDN), Nationally Determined Contributions (NDCs), and National Biodiversity Strategies and Action Plans (NBSAPs), it primarily captured commitments. The next logical step is to document and analyse the tangible restoration outcomes, reflecting hectares of land under active restoration, rehabilitation, or improved management.

The Global Restoration Achievements Database provides a transparent, standardised mechanism for tracking implementation progress and compiling comparable information on reported restoration commitments and efforts across countries. The database's core evidence base is derived from officially reported achievements submitted by governments through national PRAIS reports for LDN, NBSAPs, NDCs, and Bonn Challenge progress reports, which constitute authoritative reporting under international conventions.

In addition, the database draws selectively on global platforms such as the FAO's Framework for Ecosystem Restoration Monitoring (FERM), Restor, the IUCN Contributions for Nature portal, and Nature Commitments to capture supplementary information on restoration implementation. Data from these platforms are not considered official government submissions and are therefore treated analytically as distinct from national reporting. They are incorporated exclusively within a 'high estimate' scenario to reflect potential implementation beyond formally reported national figures, without conflating them with endorsed government data.

This initiative complements existing monitoring frameworks by integrating data on hectares restored, land-use categories, and intervention typologies. It provides governments, researchers, and policymakers with a unified system for evaluating the implementation of global restoration commitments. The database is intended to be delivered as an operational tool, combining a structured data repository with an accessible analytical interface, either as an online platform or as an integrated module within existing reporting systems, to ensure usability by national agencies and international partners. The Global Restoration Achievements Database not only establishes accountability but also enhances understanding of where restoration efforts are succeeding, lagging, or facing systemic challenges. Through this, it contributes to international efforts to achieve the targets of the UN Decade on Ecosystem Restoration, the Kunming-Montreal Global Biodiversity Framework, and the United Nations Convention to Combat Desertification (UNCCD)'s goal of achieving Land Degradation Neutrality by 2030.

2.0 Global and Regional Context

2.1 Scale of Land Degradation and Urgency for Restoration

Globally, land degradation has emerged as one of the most pervasive environmental challenges, affecting biodiversity, human well-being, and the stability of Earth's systems. (UNCCD) estimates that nearly 40% of the planet's terrestrial surface is degraded, impacting over three billion people worldwide (UNCCD, Global Land Outlook, 2022). The Global Land Outlook further highlights that, between 2015 and 2019, approximately 100 million hectares

of productive land were degraded each year, driven primarily by unsustainable land management, deforestation, and climate change.

Scientific assessments confirm that restoring degraded lands is one of the most cost-effective strategies for mitigating climate change and biodiversity loss. Restoring degraded ecosystems could sequester up to three billion tonnes of carbon annually while generating economic returns of USD 7–30 for every dollar invested (IPBES, Assessment Report on Land Degradation and Restoration, 2018; UNCCD, 2022). Bergstrom et al. (2021) emphasise that reversing ecosystem collapse requires immediate, coordinated restoration interventions at landscape and regional scales.

2.2 International Policy Frameworks Shaping Restoration Implementation

The global restoration agenda is embedded within three principal international frameworks: the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Framework Convention on Climate Change (UNFCCC).

Under the CBD Kunming-Montreal Global Biodiversity Framework (adopted at COP 15 in 2022), Target 2 commits Parties to the effective restoration of at least 30% of degraded terrestrial, inland water, and coastal and marine ecosystems by 2030 (CBD, 2022). The Framework positions ecosystem restoration as central to achieving the 2050 Vision of "Living in Harmony with Nature."

The UNCCD's Land Degradation Neutrality (LDN) framework operationalises this ambition through measurable national targets and a monitoring architecture that assesses land condition dynamics classified as degraded, stable, or improved using consistent global indicators (UNCCD, 2022). This is complemented by the LDN response hierarchy avoid > reduce > reverse, which provides a structured approach to land management interventions with restoration activities explicitly positioned within the reverse category aimed at recovering degraded land.

Similarly, the UNFCCC integrates restoration into the climate agenda through land-use, land-use change, and forestry (LULUCF) sectors and nature-based solutions embedded in Nationally Determined Contributions (NDCs). The 2023 NDC Synthesis Report records that over 70% of Parties now include ecosystem restoration as a component of their mitigation and adaptation commitments (UNFCCC, 2023).

Collectively, these frameworks establish a coherent, science-based foundation for monitoring and reporting restoration achievements and underscore the need for harmonised datasets to evaluate implementation across conventions.

2.3 Platforms Supporting the Tracking of Restoration Achievements

Efforts to monitor restoration progress are increasingly supported by institutionalised platforms that combine official reporting with open-access data systems. The FAO Framework for Ecosystem Restoration Monitoring (FERM), developed as part of the UN Decade on Ecosystem Restoration (2021–2030), provides the first global mechanism for the standardised collection of restoration data. It enables countries to report on hectares under restoration, restoration types, and biomes involved, aligning with CBD Target 2 and UNCCD LDN indicators (FAO, 2023).

Complementing FERM, national reporting to the Rio Conventions on LDN targets, NBSAP updates, and NDC submissions provides official documentation of restoration achievements. However, variations in definitions, methods, and reference baselines continue to complicate global data comparability (CBD, 2022; UNCCD, 2022). Establishing a unified Global Restoration Achievements Database will help reconcile these differences, ensuring data consistency and transparency.

Alongside these official reporting channels, additional platforms such as Restor, the IUCN Contributions for Nature portal, and Nature Commitments aggregate restoration implementation data reported by non-state actors, projects, and multi-stakeholder initiatives. While these platforms enhance visibility of on-the-ground local restoration activities, their data are not uniformly validated through national reporting processes and therefore cannot be treated as equivalent to official government submissions under international conventions.

Establishing a unified Global Restoration Achievements Database enables the integration of these multiple data streams within a structured analytical framework while maintaining a clear distinction between official and supplementary sources.

2.4 Status of Restoration Implementation

While restoration pledges have exceeded one billion hectares globally, verified achievements remain limited. Analyses in the IPBES Assessment Report on Land Degradation and Restoration (2018) indicate that only a fraction of pledged restoration areas have entered active implementation. Similarly, the FAO Global Forest Resources Assessment (2020) reports that, despite large-scale commitments under the Bonn Challenge and related regional initiatives, measurable restoration progress is constrained by financial, technical, and monitoring capacities.

Empirical studies demonstrate that restoration interventions, when adequately resourced and monitored, deliver substantial ecological and socio-economic returns. For example, Meerveld et al. (2021) found that forest regeneration in tropical catchments improves hydrological ecosystem services, while Sacco et al. (2021) highlight restoration's co-benefits for carbon sequestration, biodiversity recovery, and livelihoods. However, inconsistent monitoring frameworks and data granularity continue to limit the capacity to assess global restoration outcomes systematically.

2.5 Regional Patterns and Sectoral Priorities

Africa

Sub-Saharan Africa remains the most active region for restoration implementation, driven by initiatives such as the African Forest Landscape Restoration Initiative (AFR100) and the Great Green Wall. Yet progress remains uneven, with many countries reporting partial implementation of their targets due to limited finance and institutional coordination (UNCCD, 2022). Restoration achievements here predominantly focus on drylands, rangelands, and agricultural systems.

Asia and the Pacific

Countries in East and South Asia have prioritised forest landscape restoration, agroforestry, and mangrove recovery. FAO (2023) reports major restoration efforts in China, India, Indonesia, and the Philippines, contributing significantly to national climate and biodiversity goals.

Latin America and the Caribbean

Latin American countries have advanced restoration through regional mechanisms such as Initiative 20×20, with measurable achievements in Brazil, Mexico, and Colombia. The FAO Restoration Flagships Report (2023) notes approximately 20 million hectares under active restoration in the region, focusing on forest, agricultural, and coastal ecosystems.

Europe and Central Asia

European restoration achievements are increasingly linked to EU biodiversity strategies and forest restoration programmes. Despite a limited degraded area compared to tropical regions, the emphasis on ecological connectivity and rewilding contributes to long-term ecosystem recovery and carbon neutrality objectives (CBD, 2022).

2.6 Monitoring and Data Harmonisation Challenges

A persistent barrier to evaluating restoration achievements lies in the heterogeneity of monitoring methodologies and reporting metrics. Countries often differ in their definitions of "restoration," "rehabilitation," and "improved management." The UNCCD recommends using outcome-based indicators, land productivity, soil organic carbon, and land cover, to ensure consistent interpretation of land condition changes (UNCCD, 2022). The CBD has also called for alignment of reporting under the Monitoring Framework for the Kunming-Montreal Global Biodiversity Framework to standardise data across conventions (CBD, 2023).

The FAO's FERM platform provides a promising model by integrating remote sensing, field validation, and metadata documentation to ensure comparability and transparency (FAO, 2023). Nevertheless, integrating these systems into a unified Global Restoration Achievements Database remains essential to avoid double-counting and to provide verifiable evidence of progress.

2.7 Implications for 2030 and Beyond

The Kunming Montreal Global Biodiversity Framework's 30% restoration target by 2030 and the UNCCD's LDN targets define an ambitious global trajectory. However, progress reports from all three Rio Conventions indicate that the current rate of implementation is insufficient to meet 2030 milestones (UNCCD, 2022; UNFCCC, 2023; CBD, 2023). The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES,2018) concluded that without accelerated and verifiable restoration, global restoration goals will remain aspirational rather than achieved.

Developing a comprehensive Global Restoration Achievements Database will therefore be instrumental in bridging the information gap between commitments and outcomes. It will provide a transparent, harmonised evidence base to inform policy, strengthen accountability, and enable data-driven scenario analyses toward 2030 and 2050.

3. Database Methodology

3.1 Introduction

This section describes the methodology used to compile, structure, and analyse the Global Restoration Achievements Database. The methodological approach mirrors that applied in the Global Restoration Commitments Database 2024, ensuring consistency, comparability, and continuity between the two datasets.

While the commitments database focused on documenting pledged restoration targets, the achievements database applies the same methodological principles to capture reported restoration implementation, expressed as hectares under restoration, rehabilitation, or improved management. In line with the UNCCD's LDN hierarchy, only actions that contribute to reducing and reversing categories such as rehabilitation, restoration, and sustainable land management leading to measurable improvement are systematically captured as restoration achievements. Actions primarily aimed at avoiding degradation, including the designation of new conservation areas without evidence of active restoration or improvement in land condition, are not classified as restoration achievements but may be recorded separately where relevant for contextual interpretation. The database is developed through a systematic desk-based review of reporting documents and recognised global platforms, applying consistent inclusion criteria, categorisation rules, and uncertainty considerations.

3.2 Achievements Included in the database

The database includes reported restoration achievements identified from official national and international reporting sources, including:

- Land Degradation Neutrality (LDN) country reports submitted under the UNCCD
- National Biodiversity Strategies and Action Plans (NBSAPs) and National Adaptation Plans (NAPs) submitted under CBD-related reporting processes
- Nationally Determined Contributions (NDCs) submitted under the UNFCCC
- Bonn Challenge progress reports submitted by governments

These sources represent government-endorsed reporting and constitute the core dataset of the Global Restoration Achievements Database. However, reporting pathways are not fully consistent across countries. While formally submitted data through systems such as PRAIS are prioritised as the primary source of officially reported achievements, additional government-validated outputs (e.g., national LDN reports developed under technical support programmes) are incorporated selectively where they provide evidence of implemented actions but have not yet been formally reported through convention reporting channels.

In addition, reported restoration achievements identified through selected global platforms such as the FERM, Restor, the IUCN Contributions for Nature, and Nature Commitments are included as supplementary data. These data do not constitute official government reporting and are not merged with the core dataset. Instead, they are used exclusively to inform a separate high-estimate analytical scenario that reflects potential implementation not yet captured in national reports.

3.3 Conditions for Inclusion of Achievements in the Database

To be included in the database, reported restoration achievements must meet the following conditions, consistent with the criteria applied in the commitments database:

- The achievement must be explicitly reported as implemented, rather than planned or proposed actions.
- The achievement must include a quantitative, area-based figure, expressed or convertible into hectares.
- The source must clearly reference the reporting framework, document, or platform from which the data are drawn.
- Ongoing restorations are excluded from achievements but recorded in the database. These entries are retained for future updates as achievements are implemented.
- Designation of protected area after the baseline year (2015) is not considered a restoration achievement unless accompanied by explicit reporting of implementation, quantitative area-based figures, and clear references.

Reported information that is qualitative only, lacks area-based estimates, or refers solely to future intentions is documented for contextual purposes but excluded from quantitative analysis.

3.4 Data Categorisation per Country

All reported restoration achievements are compiled and categorised at the country level using a standardised set of attributes, consistent with the commitments database structure.

Total Amount of Hectares

The total hectares under restoration reported for each country reflect the cumulative area explicitly identified as restored, under restoration, or under improved management during the reporting period.
Aggregation is conservative: only non-overlapping figures from official government sources

are summed, and reported hectares are not assumed to be additive when overlap across frameworks cannot be ruled out.

Reference Year

The reference year corresponds to the year explicitly indicated in the reporting source as the period of implementation or reporting. Where a range of years is provided, the most recent year is recorded.

Deadline Year

Where applicable, a deadline year is recorded if the reported achievement is explicitly linked to a time-bound target or reporting cycle (e.g. progress toward a 2030 objective). This field is optional and is not used as an analytical parameter unless explicitly stated in the source.

Link to Other Plans

This field captures explicit linkages between reported restoration achievements and other national or international plans, such as NDCs, NBSAPs, NAPs, or LDN targets, where such links are clearly documented in the source.

Source Link

A direct reference to the original reporting document or platform entry is recorded for each data point to ensure traceability and transparency.

3.5 Uncertainties

Uncertainties in the database arise from variations in reporting practices, definitions of restoration, temporal coverage, and validation processes across countries and sources. In particular, differences in how restoration, rehabilitation, and sustainable land management are defined may affect comparability.

No attempt is made to harmonise, adjust, or infer reported achievement figures beyond unit standardisation and categorisation. Supplementary platform-based data are clearly distinguished from official reporting to avoid overestimation or misinterpretation.

3.6 Coherence Between Different Achievements

Where countries report restoration achievements across multiple frameworks or sources, coherence checks are applied to identify potential overlaps or inconsistencies. In cases of duplication, official government-reported figures take precedence, and supplementary platform-based entries are excluded from baseline aggregation.

Linkages between achievements reported under different frameworks (e.g. LDN and NDCs, or NBSAPs and Bonn Challenge reporting) are documented to support comparative analysis and to improve understanding of how restoration implementation is reflected across reporting processes.

3.7 Estimation Approach

To account for potential overlaps in restoration achievements reported across different official reporting sources, four estimation approaches are applied. These provide a range of possible total restoration areas, from conservative to more expansive interpretations.

The high estimate assumes no overlap between restoration achievements reported across different official reporting sources and aggregates all reported targets per country.

The middle estimate (sub-category level) assumes that smaller targets are encompassed by the largest value in the sub-category and retains only the highest reported value per restoration sub-category across reported restoration achievements.

The middle estimate 2 (main category level) assumes greater overlap across measures within main categories and retains only the highest reported value for each main restoration category.

The low estimate assumes that all other achievements are fully overlapping and considers only the single largest commitment reported per country, regardless of category or reporting source.

4 Analysis Findings

4.1 Global Restoration Achievements: Key Findings

Based on the aggregation of officially reported restoration achievements across reporting frameworks, national reporting frameworks document approximately 124.3 million hectares of land under restoration, rehabilitation, or improved management. When compared with aggregated commitments across LDN, NBSAP, NDC, and the Bonn Challenge, global delivery accounts for approximately 10.4% of the total pledged restoration area.

While reported achievement figures vary across reporting frameworks, the distribution of these achievements across reporting instruments reveals marked differences in implementation focus, reporting maturity, and institutional alignment.

Achievements reported under LDN frameworks account for approximately 15.8% of total reported hectares globally. This reflects the operational nature of the LDN framework, which emphasises measurable land condition outcomes and has established relatively consistent indicators for tracking implementation. In regions such as Sub-Saharan Africa, Central Asia, and parts of the Middle East and North Africa, LDN reporting captures large-scale interventions in drylands, rangelands, and agricultural systems, often supported by long-term programmes and international financing mechanisms. The prominence of LDN achievements suggests that frameworks with clear, outcome-oriented metrics are more effective at translating commitments into reported implementation.

Restoration achievements reported through NDCs constitute approximately 32.2% of the global total. These achievements are primarily concentrated in regions with strong land-use and forestry components in their climate strategies, particularly in East Asia and parts of Latin America. The substantial contribution of NDCs reflects the growing integration of ecosystem restoration into climate mitigation and adaptation planning. However, reporting under NDCs remains uneven, with restoration achievements often embedded within broader land-use narratives rather than systematically quantified, limiting comparability across countries.

Achievements reported under the Bonn Challenge represent approximately 7.1% of the total documented hectares. While the Bonn Challenge has played a pivotal role in mobilising large-scale restoration ambition, the comparatively lower share of reported achievements highlights persistent challenges in translating pledges into verifiable implementation. These challenges include long implementation timelines, financing constraints, and inconsistencies in progress reporting across countries and regions. The gap between Bonn Challenge commitments and achievements underscores the importance of strengthened monitoring and reporting mechanisms to support accountability.

In contrast, restoration achievements reported through NBSAPs and related biodiversity reporting processes account for the largest share, representing around 44.8% of the global total. This reflects the complexity of biodiversity-focused restoration, which often spans multiple ecosystems and sectors and is frequently reported in area-based terms, depending on reporting structures, guidance, and metrics. However, restoration achievements after the last reporting cycle are not reflected in this iteration of achievement figures.

Across all frameworks, the analysis indicates that restoration implementation is progressing, but not uniformly. Frameworks with more precise definitions, established indicators, and

stronger monitoring architectures, such as LDN and, to a lesser extent, NDCs, are more effective at capturing achievements. Conversely, biodiversity-focused and multi-objective frameworks continue to face challenges in systematically documenting restoration outcomes at scale.

These findings reinforce the central conclusion of this report: the availability of robust, standardised data is a critical enabling factor for translating restoration commitments into demonstrable achievements. Equally important are the presence of clear, internationally recognised methodologies, such as the Good Practice Guidance for SDG indicator 15.3.1 under the UNCCD and accessible user-oriented analytical platforms such as Trends. Earth, which supports the consistent application and interpretation of these methods. Where reporting systems are well defined and supported, implementation becomes more visible and accountable. Where they are fragmented or ambiguous, progress in restoration risks remaining underreported, regardless of on-the-ground activity.

4.2 Regional Distribution of Restoration Achievements

The regional aggregation of officially reported restoration achievements highlights strong geographic concentration, with a small number of regions accounting for the majority of documented implementation. In total, the highest estimate of 124.3 million hectares of restoration achievements in 4 estimation approaches (See 3.7 Estimation Approaches) across regions is illustrated in Figure 1.

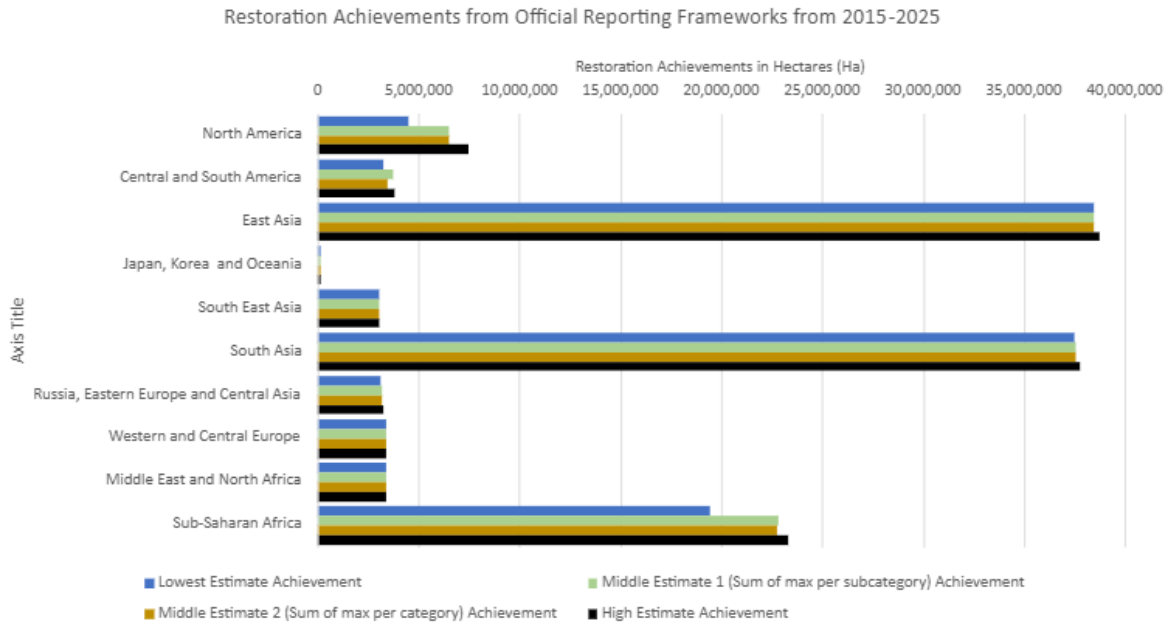


Figure 1. Restoration achievements under official reporting frameworks from 2015-2025 across 4 estimation approaches

Sub-Saharan Africa

Sub-Saharan Africa accounts for the third largest share of global restoration achievements, with approximately 23.3 million hectares, representing 18.8% of the worldwide total. Achievements in the region are predominantly reported under LDN and are strongly associated with drylands, rangelands, and agricultural landscapes. This pattern reflects both the scale of land degradation challenges in the region and the strong alignment of national priorities with land productivity and desertification control.

However, the region has committed approximately 480.3 million hectares, so reported achievements account for only 4.9% of the pledged restoration area.

Despite the high aggregate figures, ecosystem-specific restoration, particularly in wetlands, forests, and coastal systems, remains less visible in reported achievements, suggesting uneven coverage across ecosystem types.

East Asia

East Asia accounts for the largest share of reported restoration achievements, with approximately 38.8 million hectares, representing 31.2 % of the global total. Achievements in this region are largely driven by land-use and forest-related interventions reported under NDCs, supported by long-standing national monitoring systems.

With total commitments of approximately 110.0 million hectares, this corresponds to a delivery rate of 35.3%, the second-highest proportion.

Achievements in a limited number of countries indicate that reporting capacity and established institutional frameworks play a significant role in shaping the visibility of restoration implementation efforts.

Western and Central Europe

Western and Central Europe reports approximately 3.4 million hectares, corresponding to 2.7 % of global restoration achievements. Reported achievements are primarily associated with forest rehabilitation, land-use improvement, and ecological connectivity measures.

With commitments totalling approximately 16.5 million hectares, the region has achieved approximately 20.7% of pledged restoration area, one of the highest proportional delivery rates globally.

While the absolute area is lower than in other regions, reflecting lower levels of land degradation, restoration actions are often embedded within broader conservation and management frameworks, limiting the explicit reporting of restoration-specific achievements.

Russia, Eastern Europe and Central Asia

This region accounts for approximately 3.2 million hectares of reported restoration achievements, representing 2.6 % of the global total. Achievements are mainly reported under LDN and NDCs and are associated with grasslands, agricultural land, and forest rehabilitation.

With commitments of approximately 15.1 million hectares, achievements correspond to approximately 21.4% of pledged restoration, the third-highest proportional delivery among all regions.

Variability in reporting practices across countries contributes to uneven visibility of restoration achievements within the region.

Middle East and North Africa

The Middle East and North Africa region reports approximately 3.4 million hectares, accounting for 2.7 % of global restoration achievements. Implementation is strongly oriented toward dryland restoration and land productivity improvement, primarily captured through LDN reporting.

Against commitments of approximately 102.7 million hectares, this represents only 3.3% delivery.

Ecosystem-specific restoration remains underreported, reflecting both environmental constraints and reporting challenges.

North America

North America accounts for approximately 7.5 million hectares, representing 6.0 % of the global total. Reported achievements are limited in scope relative to the regional land area and are primarily associated with specific programmes rather than comprehensive national reporting.

With commitments of approximately 45.5 million hectares, this corresponds to a delivery rate of 16.4%, significantly above the global average.

This suggests that restoration implementation may be underreported globally due to differences in reporting practices rather than low levels of activity.

Central and South America

Central and South America report approximately 3.8 million hectares, accounting for 3.1% of global restoration achievements. Achievements are primarily linked to forest landscape restoration and integrated land-use interventions aligned with NDCs and the Bonn Challenge.

With commitments totalling approximately 210.1 million hectares, the region has delivered approximately 1.8% of the pledged restoration area.

Fragmentation across reporting frameworks limits the visibility of cumulative achievements at the regional scale.

Southeast Asia

Southeast Asia accounts for approximately 2.5 million hectares, representing 2.4 % of global restoration achievements. Reported achievements are largely captured through biodiversity-related reporting and reflect a focus on forest and agricultural systems.

Against commitments of approximately 57.2 million hectares, this corresponds to a delivery rate of 5.3%, broadly aligned with the global average.

Despite significant restoration potential, particularly in coastal and mangrove ecosystems, reported achievements remain relatively limited.

South Asia

South Asia reports approximately 37.8 million hectares, corresponding to 30.4% of the global total. Achievements are primarily associated with land productivity and agricultural interventions reported under LDN and NBSAP-related processes.

With commitments of approximately 94.1 million hectares, this represents 40.1% delivery, the highest proportional achievement rates globally.

Japan, Korea and Oceania

This region accounts for less than 0.12 million hectares, representing 0.1% of global restoration achievements. The limited reported area reflects both smaller land areas and reporting practices that prioritise conservation and management over restoration-specific metrics.

With commitments of approximately 60.6 million hectares, reported delivery corresponds to only 0.2% of pledged restoration area, the lowest proportional performance globally.

4.3 Category-Level Patterns of Restoration Achievements

The aggregation of reported restoration achievements by category highlights a concentrated pattern of implementation within a limited set of land-based ecosystem categories. Across all regions and reporting frameworks, restoration achievements are unevenly distributed, reflecting both policy priorities and the structure of existing monitoring and reporting systems.

4.4 Global Restoration Implementation Landscape and Potential

The analysis presented in Sections 4.1- 4.3 is based exclusively on officially reported restoration achievements submitted through national and international reporting frameworks. These data provide the most authoritative and verifiable basis for assessing global restoration progress and underpin the headline estimate of approximately 122.1 million hectares of restoration implementation globally. However, this figure represents a conservative lower bound, reflecting only those restoration actions that have been formally reported, consolidated, and endorsed through national processes.

To situate these verified achievements within a broader global context, this section examines complementary evidence on the landscape of restoration implementation and its potential. This includes institutionally aggregated datasets and open-access restoration platforms that capture additional information on restoration activity on the ground that is not yet reflected in official reporting. These data sources are analytically distinguished from official achievements and are not incorporated into baseline global totals. Instead, they are used to characterise the scale, distribution, and possible future contribution of restoration efforts beyond the current reporting envelope.

4.4.1 Institutionally Aggregated Implementation Landscape

The FAO Framework for Ecosystem Restoration Monitoring (FERM), developed under the UN Decade on Ecosystem Restoration, compiles restoration information reported through a range of national, sectoral, and programme-level channels using harmonised typologies and metadata. FERM aggregates data on areas under restoration across ecosystem types and intervention categories, drawing on sources that extend beyond those typically consolidated in national submissions to the Rio Conventions.

At the global level, FERM aggregates indicate approximately 0.35 million hectares of restoration activity across the countries included in this analysis. When assessed relative to aggregated regional restoration commitments, FERM-reported areas represent less than 1% of pledged commitments in most regions. The highest proportional alignment is observed in Western and Central Europe (0.96% of commitments) and South Asia (0.16% of commitments), while in several regions, including Sub-Saharan Africa, East Asia, and Russia, Eastern Europe and Central Asia, FERM-reported area remains negligible relative to commitment levels. The divergence between FERM aggregates and officially reported achievement figures does not imply inconsistency or error. Rather, it reflects differences in reporting scope, reference periods, and validation pathways, as well as the partial and evolving coverage of FERM across countries. In this report, FERM data are therefore treated as contextual evidence of the broader implementation landscape, helping to identify reporting gaps and additional implementation signals, but are not interpreted as additional verified achievements and are not merged with official totals.

This deviation does not imply inconsistency in reporting. Rather, it reflects differences in participation levels, reporting scope, reference periods, and validation pathways. FERM currently captures a subset of sectoral and programme-level interventions and does not provide comprehensive geographic coverage across all commitment-holding countries. In this report, FERM data are therefore treated as contextual evidence of institutionally aggregated implementation activity, rather than as additional verified achievements or as a proxy for commitment delivery.

4.4.2 Reported Restoration Activity and Potential Implementation

Open-access platforms such as Restor provide further insight into the global landscape of restoration implementation by documenting self-reported restoration projects and sites

implemented by non-state actors, civil society organisations, research institutions, and multi-stakeholder initiatives. These platforms offer high spatial and thematic granularity and capture restoration efforts across ecosystem types and geographies, often not fully visible in national reporting systems.

Globally, Restor documents reported restoration activity totalling approximately 2.56 billion hectares across the countries included in this database. When assessed relative to aggregated regional restoration commitments (approximately 1.19 billion hectares globally), the scale of reported activity substantially exceeds pledged ambition in several regions. Reported restoration areas correspond to approximately:

- 527% of commitments in Western and Central Europe
- 385% in Central and South America
- 262% in Sub-Saharan Africa
- 280% in Russia, Eastern Europe and Central Asia

In contrast, reported activity remains below commitment levels in:

- 48% of commitments in East Asia
- 75% in North America
- 21% in the Middle East and North Africa

These divergences reflect structural differences between platform-based reporting and formal commitment frameworks. Restor entries frequently include heterogeneous definitions of restoration, variable stages of implementation (including planned, ongoing, and partial activities), landscape-scale reporting, overlapping geographic boundaries, and limited verification. Consequently, aggregated platform-based figures do not represent verified implementation outcomes and should not be interpreted as delivery against national or regional commitments.

In this database, Restor data are therefore used to illustrate the geographic breadth and scale of reported restoration engagement rather than to quantify verified achievement. The magnitude and regional concentration of reported activity indicate substantial global engagement in restoration across actors and sectors. At the same time, the divergence between reported activity and pledged commitments underscores the importance of strengthened monitoring, harmonised definitions, and improved integration between project-level platforms and formal national reporting systems to ensure that restoration activity is transparently translated into verified, reportable achievements.

4.4.3 The Global Restoration Implementation Continuum

Taken together, official reporting, institutionally aggregated datasets, and platform-based activity data define a global restoration implementation continuum within which verified national achievements represent the most conservative and policy-endorsed estimate.

At the lower bound, official national reporting establishes approximately 116.2 million hectares of verified restoration implementation globally, assessed against an aggregated commitment envelope of approximately 1.19 billion hectares. Institutionally aggregated datasets such as FERM provide complementary insights into additional restoration interventions reported through structured channels but not yet consolidated within formal national submissions. At the upper indicative bound, open-access platforms such as Restor document reported restoration activity totalling approximately 2.56 billion hectares, reflecting the breadth of reported engagement rather than validated implementation outcomes.

These layers of evidence are not additive and should not be interpreted as cumulative measures of restoration achievement. Rather, they represent distinct positions along the

restoration reporting and validation spectrum, ranging from verified, politically endorsed achievements to structured but partial institutional aggregation to self-reported, unverified activity. Recognising these distinctions is essential to avoid overestimating while ensuring that emerging restoration efforts and reporting gaps are acknowledged transparently.

Viewed through this continuum, current verified achievements represent only a limited share of pledged ambition at the global level. At the same time, the scale of reported activity captured by platform-based systems highlights widespread engagement among actors and across regions. Bridging the gap between reported activity and verified achievement will require strengthened national monitoring systems, improved data harmonisation, clearer definitional alignment, and enhanced integration between project-level platforms and formal reporting frameworks. Such improvements are essential to support the transparent assessment of progress under the Kunming–Montreal Global Biodiversity Framework and the objectives of the UN Decade on Ecosystem Restoration, as well as related reporting processes under the UNCCD and UNFCCC.

5. Data Gaps and Limitations

5.1 Data Gaps

Several structural data gaps affect the interpretation of restoration commitments and achievements:

- National Biodiversity Strategies and Action Plans predominantly emphasise target setting, with limited systematic follow-up on previous cycles and insufficient clarity on whether restoration targets have been achieved or extended.
- Assessments of restoration-related indicators in Sixth National Reports frequently lack clearly defined implementation timelines, limiting the ability to verify completion status.
- Reported restoration figures in Sixth National Reports are often accompanied by supplementary web links that are outdated, inaccessible, or insufficiently detailed to confirm reported area values.
- The granularity, consistency, and methodological robustness of reported figures depend on national monitoring systems and inter-agency coordination. As a result, the level of detail varies substantially across reporting parties.
- Divergent reporting cycles across LDN, NBSAP, NDC, and other mechanisms create temporal blind spots, complicating the assessment of progress over time.
- NDC reporting under Land Use, Land-Use Change, and Forestry is designed primarily for emissions accounting. Emission factors and aggregated land-use categories cannot be reliably translated into spatially explicit, area-based restoration metrics without explicitly stating the restoration area.

5.2 Limitations

This database operates within clearly defined methodological boundaries:

- A strict operational distinction is maintained between protection, such as designation or expansion of protected areas, and active restoration interventions. Updates to the World Database on Protected Areas are therefore not interpreted as restoration achievements, as these values reflect designation status rather than restoration action.
- Projects or programmes lacking clearly defined completion milestones or verifiable implementation timelines are excluded from validated achievement totals.

- Multi-year progress claims that span pre- and post-baseline periods without annualised, verifiable data are not counted, as the timing and scale of intervention cannot be confirmed with sufficient precision.
- The database is a secondary compilation of nationally reported data. Accuracy depends on the quality, transparency, and methodological rigour of underlying national monitoring, reporting, and verification systems. Unreported or informally implemented restoration achievements cannot be captured within this framework.
- Restoration achievements are captured until January 2026. Thus, the database has documented and not included ongoing restoration achievements captured in reports from the new reporting cycle in 2026.

References

- Bergstrom, Dana M., et al. “Combating Ecosystem Collapse from the Tropics to the Antarctic.” Global Change Biology, vol. 27, no. 9, 2021, pp. 1692–1703.
- Convention on Biological Diversity (CBD). Kunming–Montreal Global Biodiversity Framework: COP 15 Decision 15/4. Secretariat of the CBD, 2022.
- Convention on Biological Diversity (CBD). Monitoring Framework for the Kunming–Montreal Global Biodiversity Framework. Secretariat of the CBD, 2023.
- Food and Agriculture Organization of the United Nations (FAO). Framework for Ecosystem Restoration Monitoring (FERM). FAO, 2023.
- Food and Agriculture Organization of the United Nations (FAO). Global Forest Resources Assessment 2020. FAO, 2020.
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Assessment Report on Land Degradation and Restoration. IPBES Secretariat, Bonn, 2018.
- Meerveld, H. J. van, et al. “Forest Regeneration Can Positively Contribute to Local Hydrological Ecosystem Services: Implications for Forest Landscape Restoration.” Journal of Applied Ecology, vol. 58, no. 4, 2021, pp. 755–765.
- Sacco, A. D., et al. “Ten Golden Rules for Reforestation to Optimise Carbon Sequestration, Biodiversity Recovery and Livelihood Benefits.” Global Change Biology, vol. 27, no. 7, 2021, pp. 1328–1348.
- United Nations Convention to Combat Desertification (UNCCD). Global Land Outlook, Second Edition. UNCCD Secretariat, Bonn, 2022.
- United Nations Framework Convention on Climate Change (UNFCCC). NDC Synthesis Report 2023. UNFCCC Secretariat, Bonn, 2023.



www.iucn.org | #GenerationRestoration

IUCN