

The unequal burden of biodiversity reporting

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Discussions around the first review of the Kunming-Montreal Global Biodiversity Framework reveal how the pursuit of more comprehensive measurement can obscure a challenge that will define the post-2030 agenda: ensuring that all countries and stakeholders are able to participate in and be represented by the systems used to evaluate global progress.

The Monitoring Framework of the Kunming-Montreal Global Biodiversity Framework (GBF) is an unprecedented global effort to measure progress toward halting and reversing biodiversity loss through a shared set of standardized indicators¹. However, the selection of indicators was far from a neutral scientific endeavor. Indicator selection was shaped not only by considerations of feasibility and data availability but also institutional priorities and the ability of scientists and conservation organizations to advocate for particular indicators². As a result, the Monitoring Framework does more than measure biodiversity progress – it shapes how progress toward biodiversity goals is understood and evaluated, and therefore which forms of knowledge become visible in the global review.

Disparities in the burden of biodiversity reporting have become evident during the first Global Review cycle. Parties submitted their 7th National Reports in February 2026, which were then summarized in the first Global Report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework³. After the Global Report was peer-reviewed in June 2026, Parties discussed how to frame its results at the 28th meeting of the Subsidiary Body of Scientific, Technical, and Technological Advice (SBSTTA). Negotiations revealed that the reporting process was extremely difficult for all countries, but especially for those with limited resources, technical expertise, institutional coordination, and financial capacity⁴. 50% of

Least-Developed Countries and nearly 80% of Small Island Developing States (SIDS) did not submit a 7th National Report by the deadline and were therefore not represented in the Global Report. The delegates from SIDS were particularly vocal about this issue, repeatedly raising concerns that their actions, successes, failures, and challenges were rendered invisible by the Global Review process, despite shouldering a disproportionate share of the social, economic, and ecological consequences of biodiversity loss⁴ (Participants' observations, see Supplementary Information). This advocacy was partially successful, as the CBD recently released a dedicated Regional Report for the Caribbean showcasing their implementation successes, but reporting levels remained markedly low for most indicators⁵.

Biases in reporting can affect downstream decisions

The repercussions of unequal visibility extend beyond the representation of country progress in the Global Report. Throughout the SBSTTA negotiations, Parties repeatedly highlighted that *lack of reporting is not lack of implementation* and worried that these can be conflated⁶. Countries that faced institutional, technical, and financial barriers to reporting expressed that the Global Report did not capture the nuanced difference between Parties' ability to comply with reporting requirements and their demonstrated action to halt biodiversity loss (Participants' observations). This led to disagreement over how the findings of the Global Report should be interpreted, and whether definitive conclusions could be drawn about progress toward the targets of the Framework (Participants' observations). As the reporting and review process is the main basis for making recommendations to accelerate action, misleading interpretations

about who was making progress and where could impact the framing of successes, priorities, and resource allocation at COP17 and beyond.

Recognizing how these inequities in monitoring and reporting visibility can propagate through decision-making, Parties at SBSTTA discussed at length ways to decrease reporting burden, such as clarifying indicator methodology, increasing technical and financial support, peer-to-peer exchange, and strengthening national monitoring systems. However, one message emerged consistently throughout discussions on the Monitoring Framework: Parties were overwhelmingly opposed to the addition of new indicators.

Despite this opposition, a growing body of scientific literature and discourse identifies shortfalls in the Monitoring Framework's ability to effectively measure the many facets of biodiversity and proposes new indicators to fill these gaps^{7–10}. While these shortfalls do exist, and proposing indicators is an interesting scientific endeavor and a clear way for scientists to engage with policy, treating “scientific completeness” as a central problem in implementing the Framework is disconnected from the needs and priorities of Parties. More troublingly, it risks entrenching existing inequities in data, reporting capacity, and visibility in the Global Review process, and more broadly, in global biodiversity governance.

Biodiversity data are known to have geographic and socioeconomic biases, with observations disproportionately concentrated in wealthier countries¹¹, the same countries that included more indicators in their 7th National Reports (Fig. 1). However, inequities in visibility within the Global Review extend beyond the distribution of biodiversity data: the capacity to calculate and report indicators also depends on access to technical expertise, computational infrastructure, monitoring technologies, and institutional resources. This further positions wealthy countries as disproportionately visible and influential within the Global Review process,

as shown by the relationship between national GDP and the number of indicators reported in the 7th National Reports (Fig. 1A).

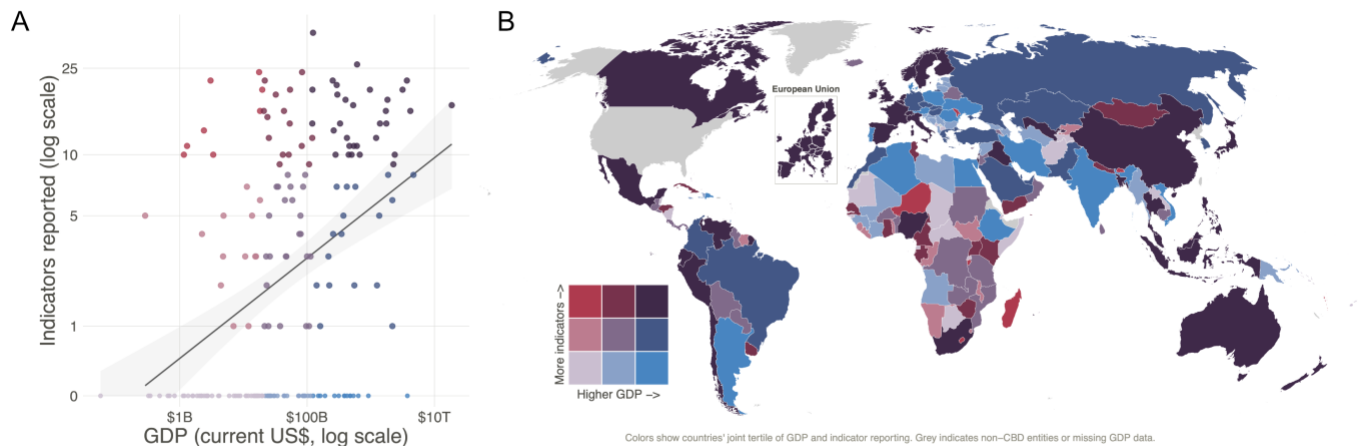


Figure 1. A) The number of headline, complementary, and component indicators reported in the 7th National Reports is positively related to country GDP. Countries are represented by points, colored by tertiles of number of indicators reported and GDP. Countries that did not report were assigned an indicator value of 0. The line is the linear model fit ($P < 0.001$) with 95% confidence intervals. B) The geographic distribution of the relationship between indicators reported and GDP, colored by tertiles of each variable.

While proposed improvements to indicators promise better detection of ecological change and, from there, more aligned actions⁷⁻¹⁰, many of these proposals risk further entrenching reporting disparities. The data underlying these proposed indicators, from animal movement and behavior to species distributions, is not only spatially biased, but also expensive to collect, requires technical expertise to analyze, and is not always publicly available^{12,13}.

91 As biodiversity monitoring becomes increasingly reliant on large datasets, advanced
92 technologies, and complex analytical methods, this gap could widen further, amplifying
93 reporting burden on less well-resourced countries. Compounding this, many wealthy countries
94 and institutions are the primary producers of biodiversity data and developers of the indicators
95 used within the Framework. A reinforcing cycle can therefore emerge where those most able to
96 shape what is measured are also best positioned to demonstrate progress against those measures,
97 thereby consolidating power and influence with experts in high-income countries.

98 Producing policy-relevant science requires understanding how research interacts with the
99 governance system it aims to inform. The science-policy interface is not a value-neutral space,
100 and it is important to consider how a proposed indicator may exacerbate or remedy existing
101 inequities in data and capacity, and how it might emphasize certain forms of progress or
102 paradigms of knowledge. These stakes extend far beyond mere compliance. The reporting
103 process is how Parties demonstrate progress, communicate the challenges and barriers they face,
104 and share lessons to inform implementation elsewhere. The information it generates shapes
105 discussions about future priorities, capacity-building needs, and resource allocation. When
106 countries cannot report, they are effectively absent from these processes and their contributions,
107 challenges, and experiences carry less weight in downstream decision-making.

109 The way forward

110 The first Global Review revealed important opportunities for scientists to improve the
111 effectiveness, equity, and representativeness of the current Monitoring Framework without
112 necessarily expanding it. In SBSTTA negotiations, Parties emphasized the importance of

operationalizing existing indicators, some of which still lack an established methodology, and improving the disaggregation of existing indicators. Further disaggregation could simultaneously broaden the ecological coverage of the Monitoring Framework (e.g. by reporting values for different realms, ecosystem types, or species groups) and increase visibility of the actions of rights-holders and stakeholders that are often obscured within national aggregates. For example, indicator 3.1 on protected areas could be disaggregated by governance type or the proportion managed by Indigenous Peoples and Local Communities, while indicators related to biodiversity finance could distinguish funding reaching IPLCs, women, or youth-led initiatives. Such approaches would yield more meaningful and representative insights from information that is already being collected. The current Monitoring Framework represents a rich and underutilized source of information that could be leveraged to better capture the diversity of biodiversity actions, actors, and pathways contributing to implementation of the GBF.

Scientists could also contribute by developing tools to help interpret the information generated through Monitoring Framework and translate it into policy-relevant insights. At SBSTTA, Parties called for a clearer distinction between indicators of action (e.g., percent protected) and indicators of outcomes (e.g., the Red List Index). An important contribution could be assessing the relationships between actions and outcomes and modelling scenarios to explore how different policy interventions affect progress toward the targets and goals. Such analyses would be particularly valuable if developed in collaboration with countries and made available on public open-source platforms (e.g., BON in a Box¹⁴). By helping Parties understand which interventions are most likely to translate into desired outcomes, these tools could support more informed decision-making and accelerate action. Such contributions may ultimately prove more valuable than expanding the set of indicators, as decades of environmental governance have

demonstrated that improved measurement does not necessarily translate into improved environmental outcomes¹⁵.

Lastly, proposed improvements to the Monitoring Framework post-2030 should be evaluated not only scientifically, but through the lens of equity, feasibility, and governance. This includes considering the source and accessibility of underlying data, the resources required to process it, and how biases at each stage of indicator reporting may propagate through global decision-making. The key question is not only what dimensions of biodiversity an indicator makes visible, but also whose actions, knowledge, and experiences become visible through its use. The first Global Review made clear that the legitimacy and effectiveness of biodiversity governance rest as much on who participates in measurement as on what is measured.

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Supplemental Information

We attended the 28th meeting of the Subsidiary Body for Scientific, Technical, and Technological Advice in Nairobi, Kenya from July 27th to August 1st, 2026. Our observations focused on the Planning, Monitoring, Reporting, and Review (PMRR) mechanism, specifically Agenda Item 3A (Global Review) and Agenda Item 3B (Monitoring Framework). We observed plenary, contact group, and friends of the chair sessions concerning these items, taking detailed notes on the Party interventions. We also attended some relevant side events where Parties had the opportunity to express some of the institutional and financial barriers they faced in reporting.