Demystifying How to Measure Nature

An Overview from New Forests

New Forests

Executive Summary

Since the Kunming-Montreal Global Biodiversity Framework (GBF) was adopted in December 2022, investors have become increasingly interested in understanding how their portfolios contribute to the global goal of nature positive, that is, to halt and reverse nature loss by 2030, with full recovery by 2050. [1] In response, nature-related reporting standards, metrics, measurement tools, and initiatives have proliferated across an increasingly long list of topics few organisations have the capacity to track in depth.

Unsurprisingly, this nature measurement clamour has created uncertainty for investors about where to start with nature integration and deployment of capital towards investments delivering nature positive outcomes.

There is, however, some good news. Sustainable forestry and agriculture can directly support investors aiming to align their portfolios with nature positive outcomes. To measure and communicate these benefits across our global portfolio, New Forests uses ground-based data from assets supplemented with remote sensing datasets and three global frameworks: the Taskforce on Nature-related Financial Disclosures (TNFD), the Nature Positive Initiative (NPI) State of Nature metrics, and Natural Capital Accounting. Each of these frameworks help us answer different questions relevant to our business, portfolio, and investors.

Investors do not need to adopt every framework and standard available nor must they have all possible nature-related data. Instead, investors should focus on having the right tools and data to answer relevant questions and inform capital allocation decisions.

The Complexity of Nature and the Nature of Complexity

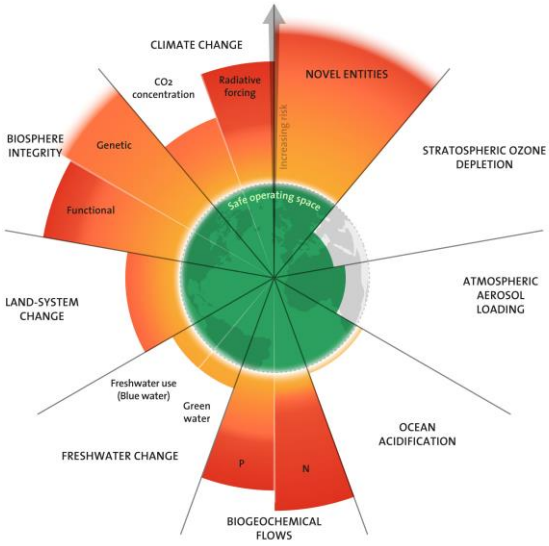
Nature, as part of broader natural capital, is no longer a niche investment theme but rather a financial signal and emerging asset class. The signal, however, is accompanied and complicated by a surge of measurement complexity. New frameworks, metrics, tools, and initiatives make it difficult for investors to know what is decision-useful and what is additive, redundant, or potentially misaligned with their investment objectives.

Importantly for capital markets, the GBF's 2030 targets explicitly encourage large companies and financial institutions to monitor, assess, and transparently disclose biodiversity-related dependencies, impacts, risks, and opportunities across business activities and investment portfolios. This combination of global goals and rapidly growing disclosure expectations has helped drive nature into investor conversations on portfolio alignment and capital allocation.

Planetary science reinforces the urgency. The Planetary Health Check 2025 assessment concluded that seven of nine planetary boundaries have been breached, indicating rising pressure on multiple Earth-system processes that underpin economic activity and societal resilience (Figure 1) and that growing environmental risks can translate into financial and investment risks. Nature is foundational to resource supply, productivity, stability, and economic activity across all sectors of the global economy.[2] Consequently, growing financial interest in nature should be viewed, at minimum, as a matter of material risk management.[3]

[1] Convention on Biological Diversity. (n.d.). Kunming–Montreal Global Biodiversity Framework, https://www.cbd.int/gbf.
[2] Dasgupta, P. (2021). *The economics of biodiversity: The Dasgupta Review*. HM Treasury. https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review.
[3] World Economic Forum. (2020). *Nature risk rising: Why the crisis engulfing nature matters for business and the economy*. World Economic Forum. https://www.weforum.org/publications/nature-risk-rising-why-the-crisis-engulfing-nature-matters-for-business-and-the-economy/.

Figure 1. Planetary Boundaries 2025[4]



Nature measurement carries inherent complexity. It is more complex than climate measurement, for example, for at least three reasons: it is multi-dimensional (e.g. biodiversity, water, soils, ecosystems), highly location-specific, and often constrained by partial, inconsistent, or non-comparable data across geographies and asset types. That complexity has underpinned a rapid expansion of measurement approaches and reporting standards, many of which may be valuable in isolation but are overwhelming in aggregate. Relatedly, different frameworks are often designed to answer different questions but may be incorrectly treated as substitutes. Some frameworks are oriented toward risk and disclosure language, others toward ecosystem outcomes, and others toward valuation of ecosystem services. Each of these orientations is legitimate, but they are not interchangeable.

From Frameworks to Fieldwork: A Practical Approach to Nature Measurement

A practical way through the complexity of nature measurement is to recognise that progress does not depend on adopting every framework or collecting every possible nature data point. Instead, the aim is to assemble a decision-led set of tools and metrics that (i) answer questions relevant to a portfolio's strategy and exposures and (ii) can plausibly be used to guide management decisions over time. For example, New Forests' African Forestry Impact Platform (AFIP) has a biodiversity impact target to increase the amount of quality habitat across the portfolio. AFIP participated in New Forests' NPI pilot and used satellite and ground-based data to identify areas of higher and lower site condition. This assessment will be used to prioritise restoration areas so that AFIP can meet its impact targets and deliver nature positive outcomes.

This decision-led approach aligns with how leading market initiatives are evolving. The Taskforce on Nature-related Financial Disclosures (TNFD) provides a structured way to identify and communicate nature-related dependencies, impacts, risks, and opportunities, supported by the LEAP (Locate, Evaluate, Assess, Prepare) approach and a disclosure architecture designed for financial decision-making. In parallel, the Nature Positive Initiative (NPI) is explicitly trying to build consensus around a small, credible set of State of Nature metrics, including through a global pilot program that included exploring how these metrics can integrate with the TNFD. New Forests participated in the NPI pilot program, delivering both the most geographically diverse pilot, spanning across the United States, Australia, Tanzania, Uganda and Mozambique, and the only landscape-scale pilot, in Western Australia.[5]

[4] Licensed under CC BY-NC-ND 3.0. Credit: Azote for Stockholm Resilience Centre, based on analysis in Sakschewski and Caesar et al. 2025. See also https://www.planetaryhealthcheck.org/ and https://www.stockholmresilience.org/research/planetary-boundaries.html.
[5] For more information, see https://newforests.com/insight/pioneering-a-global-standard-new-forests-and-naturehelm-deliver-world-leading-nature-positive-initiative-pilot-across-five-countries/.

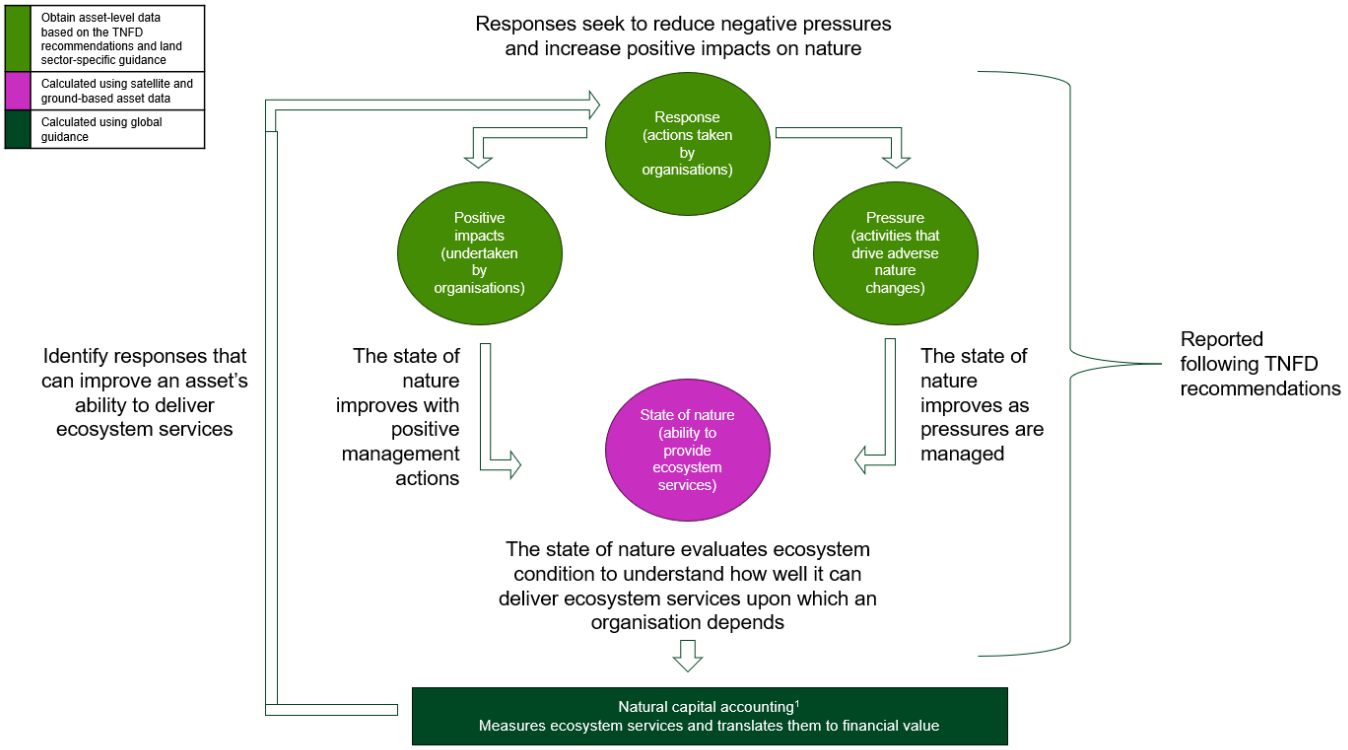
Integrating nature into decision making is often described as a problem of insufficient data, with investors frequently citing limitations in the availability, reliability, and scalability of nature-related information as a key barrier to implementation.[6,7] In practice, the greater challenge is bringing together diverse sources of information to understand and manage nature-related risks and opportunities.[8,9] The market offers a fast-expanding set of global environmental datasets, and most land-based strategies can begin with a scalable baseline built from remote, modelled, and asset-reported data, with field verification to improve accuracy. New Forests' approach follows this logic. We start with data available on a broad portfolio scale, then increase resolution, granularity, and confidence in priority areas, leveraging a small number of global frameworks for distinct purposes rather than as static checklists.

1. **Remotely sensed and modelled data (i.e. portfolio-scale baselines):** Remote sensing and other global datasets can provide a low-cost, repeatable starting point that helps identify where nature-related impacts, dependencies, risks and opportunities are concentrated to support early screening and prioritisation.
2. **Asset-reported operational data (i.e. what happens on the ground):** New Forests collects asset-level data directly from property managers twice per year to capture management practices and understand the effects of management interventions and aggregates these results at the portfolio-level.
3. **Targeted field verification and stakeholder engagement (i.e. confidence and relevance):** Remote datasets scale well, but nature remains location specific. New Forests emphasises ground-based data verification and team engagement for priority locations so that results reflect operational reality and global metrics remain locally applicable.

Complementary frameworks may create a more complete and investment-relevant picture than any single framework can provide. Asset data tells investors what happened on the ground, state-of-nature metrics indicate how ecosystems respond over time, natural capital accounting can translate selected ecosystem services into decision-relevant value, and the TNFD provides a structure for risk and disclosure that aligns with how many institutions already manage and communicate financially material sustainability issues (Figure 2; Appendix A).

[6] Responsible Investor. (2025, June 18). *RI Nature survey: Almost two-thirds of investors lack sufficient data*. Responsible Investor.
[7] State Street Global Advisors. (2026, April 27). *Nature and biodiversity data: Types and uses for investors*. State Street Global Advisors.
[8] Taskforce on Nature-related Financial Disclosures. (2023). *Recommendations of the Taskforce on Nature-related Financial Disclosures*. TNFD. https://tnfd.global/recommendations/.
[9] Taskforce on Nature-related Financial Disclosures. (2024). *Upgrading the nature data value chain for market participants*. TNFD. https://tnfd.global.

Figure 2. New Forests' Conceptual Approach to Nature Measurement and Reporting



1. Note that natural capital account development is in progress

Measurement to Action and Future Directions

Nature measurement works when it supports investment decisions. Investors do not need a complete inventory of nature-related metrics to act. Instead, they need a repeatable way to identify when and where nature matters, track how management decision effect ecosystem condition and translate that information into risk management, credible reporting, and decision making. For New Forests, decision usefulness usually means building measurement in layers, including:

- **Portfolio-scale baseline:** Using scalable remote and modelled data to identify priority locations and likely hotspots of dependency and impact.
- **Operational reality:** Anchoring the baseline in asset-reported data that captures on the ground realities and how practices change over time.
- **Outcome focus:** Tracking a set of state of nature metrics to understand whether ecosystems improve or deteriorate.
- **Natural capital valuation:** Applying natural capital accounting to clarify trade-offs, strengthen a business case, inform management and decision-making, or support external engagement.

New Forests is committed to advancing our approach to nature measurement and valuation, including future work on:

- Expanding our calculation of the NPI state of nature metrics to our global portfolio and identifying how they can be used to inform management decisions.
- Calculating natural capital accounts as part of the ISFC Forestry Natural Capital project.

- Engaging with investors and governments on emerging nature markets to support credibility and demand.
- Progressing how we integrate nature into organisational updates related to mandatory climate disclosure compliance.
- Scoping how nature can be built into forestry and agriculture valuations to recognise the benefits of sustainable land management.

Managing nature-related dependencies, impacts, risks, and opportunities has the potential to add financial value to investment portfolios. Nature measurement will keep evolving, and the ecosystem of tools will continue to expand. Investors can still move now. A decision-led nature measurement stack provides a practical route to integrate nature into due diligence, asset management, and reporting, while supporting the direction of travel set by GBF expectations and the disclosure architecture of the TNFD.

Appendix A. Summary of Components in New Forests' Approach to Nature Measurement and Reporting

	What is it?	What questions does it help to answer?	What are potential use cases?	What has New Forests done?
Asset data	Data obtained directly from property managers on assets under management	What nature-related activities are happening at assets?	Track progress against asset, fund, New Forests, and investor objectives.	Collect asset-level data biannually and report portfolio level results in our annual Sustainability & Impact Report.
TNFD	A set of recommendations for organisations to report on nature-related dependencies, impacts, risks, and opportunities	- Where are the "hot spots" of nature-related risk and opportunity in our portfolio? - How could nature-related dependencies and impacts lead to risks and opportunities? - How might nature-related dependencies, impacts, risks and opportunities lead to financial impacts?	- High level screening of the portfolio's nature-related dependencies, impacts, risks, and opportunities (DIROs). - Develop standardised disclosures.	- Integrated DIRO assessment into acquisitions and asset management processes. - Report alignment with the recommendation in our annual Sustainability & Impact Report.
NPI state of nature metrics	Standardised metrics aimed at communicating the extent and condition of ecosystems at site and landscape scales	- How is the state of nature changing, either decreasing or increasing, across the asset/fund/portfolio? - How could we shift management practices to improve the state of nature? - How does the state of nature vary between conservation and plantation areas?	- Compare the state of nature across assets, asset types and geographies using a standardised methodology. - Based on results, prioritise conservation and restoration efforts and influence management decision making.	Completed a pilot of the draft state of nature metrics (for more information, see *link to case study*).
Natural capital accounting	A framework for calculating the financial value of ecosystem services	What is the financial value of ecosystem services provided by an asset to the asset itself and society at large?	- Demonstrate the broader benefits of sustainable management of forestry, agriculture and other land uses. - Advocate for the inclusion of ecosystem services in valuations.	Participating in the International Sustainable Forestry Coalition (ISFC) natural capital accounting project (for more information, see the Forestry Natural Capital Project Phase 1 Report).