

The Roadmap for Putting Nature on the Balance Sheet

The rapidly accelerating loss of nature exacerbates climate change and threatens corporate balance sheets, national economies, global trade, and civilization at large. It is driven by a societal failure to recognize the value that nature delivers to companies, communities, and countries. We therefore need a fundamental shift in our economic system to integrate nature into economic and financial decisions to drive economic stability, manage physical and transition risks, and drive a new nature-based model of inclusive development. Recognizing the interconnectedness of human, natural, social and produced capital, and integrating these into decision-making, is fundamentally required for the new economic system we envision.

A critically important step is to put nature on the balance sheet – and recognise its value. This is now widely agreed by experts and a growing number of companies who are experiencing increasing nature risks to their operations and supply chains - both physical and transition risks are already hitting company bottom lines. For example, Grasberg Mine in Indonesia lost US\$338 million due to flooding and landslides, whilst legislation such as CSRD is mandating and incentivising transparency and nature-positive action, and social protests and community disruption are leading to further operational disruption and stranded assets.^{1, 2} At the same time, accounting for the full value of natural capital can also identify a new source of economic growth – a much more balanced and just one for communities. Putting nature on the balance sheet will support:

- The inclusion of nature risks and opportunities in financial accounts
- Unlocking private sector financing for nature at scale, including for communities who manage landscapes
- The design, implementation, and scaling of novel financial and insurance products for nature
- Sector transitions towards ‘nature-positive’ products and services, e.g. in forestry, agri-food, and mining
- The inclusion of nature in prudential capital regulation
- Central bank stress-tests on institutions holding nature risks and inclusion of natural capital on central bank balance sheets
- Price signaling, making ‘nature-positive’ products and services price competitive, driving consumer uptake at scale

Putting nature on the balance sheet will require deep but feasible changes to enablers, such as accounting, auditing, contracting, price signals, rating agencies, regulation, and national policies. Change is underway in each field, but efforts are too siloed, slow, and fragile. Although there have been many efforts to account for the value of natural capital, this has to date been done at individual company, landscape or national levels using a variety of accounting approaches, and so far, have largely not focused on financial value creation. Such efforts frequently run into roadblocks when enablers and other stakeholders, who are needed to drive value creation, do not move forward at pace.

Four principal barriers hold back companies from putting nature on the balance sheet³: (i) the lack of clarity on how to undertake natural capital measurement and valuation to support business and financial decisions; (ii) the complexity for individual change agents and pioneer companies to mobilize

¹ https://www.mining.com/web/freeport-indonesia-suspends-some-work-at-grasberg-mine-after-floods/?utm_source=slipcase&utm_medium=affiliate&utm_campaign=slipcase

² <https://reutersinstitute.politics.ox.ac.uk/news/protests-stopped-big-mining-project-panama-why-was-coverage-so-scant>

other actors needed to put nature on the balance sheet (e.g. accountants and assurers being risk averse; fear of legal action from reporting and limited interpretation of fiduciary duties); (iii) the lack of clarity on how to realize financial value from natural capital as well as the lack of exemplar projects; (iv) the lack of public regulation and incentives encouraging natural capital valuation (and indeed perverse incentives that encourage nature-negative choices).

This roadmap has been initiated by the Nature on the Balance Sheet Initiative (“NBI”)⁴ and other organizations working on accounting for natural capital. It lays out a practical path toward putting nature on the balance sheet, which can generate breakthrough results in time for the climate COP30 in Brazil later this year, with proof points of leading companies recognising value for nature across sectors and geographies, and key enablers shifting to support value recognition at scale.

Why this roadmap?

This roadmap outlines a systemic approach to overcoming each of these barriers. It combines proof points that drive capital reallocation and establish feasibility with system-level interventions (“enablers”) to gradually expand the scope and depth of natural capital valuation. This roadmap will help companies understand and frame nature risk as business risk, harness opportunities by turning disclosure and external reporting requirements into business value conversations and show the potential to extend climate-change conversations to consider how nature affects the future value of company balance sheets.

⁴ A coalition of the Capitals Coalition, the Landbanking Group, Systemiq, and the Center for Global Commons (University of Tokyo)

How to put 'nature on the balance sheet': from natural capital assessment to value recognition

Land stewards, companies, and investors who own, or control, natural capital (natural asset custodians)⁵ can put nature on the balance sheet through three key actions.

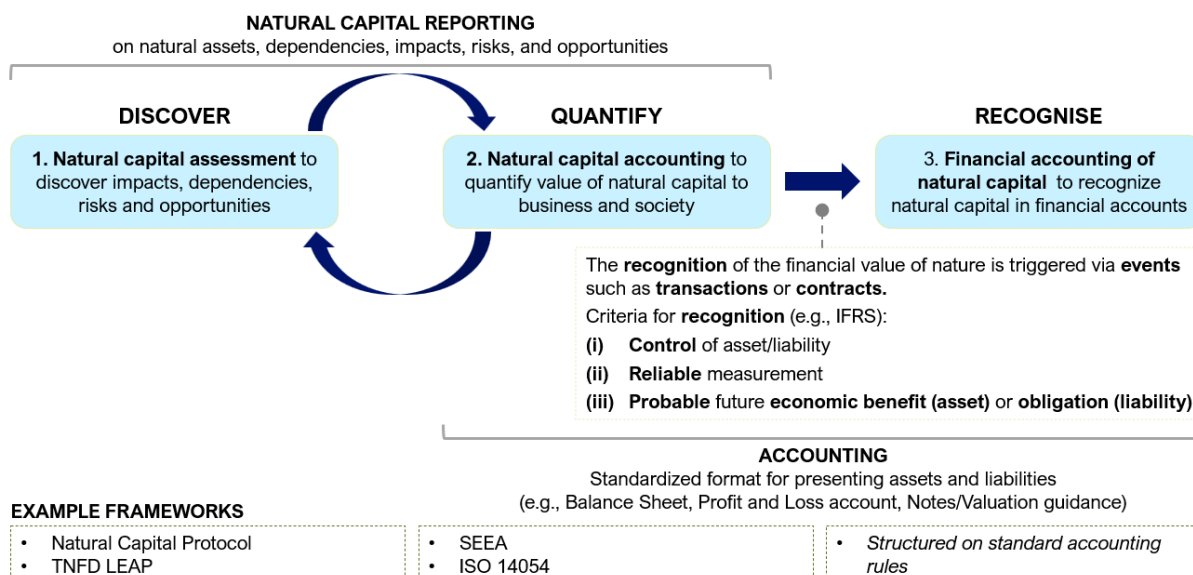


Figure 1. **Discovering, quantifying, and recognizing nature on the balance sheet**

- Discover: Natural capital assessment** is undertaken with trusted data to identify, assess, manage, and disclose nature-related dependencies, impacts, risks and opportunities, and prioritise actions to improve the state of nature. This requires measuring natural assets, dependencies and impacts, and risk and opportunities in line with the Natural Capital Protocol and TNFD's LEAP approach. Using natural capital assessments, companies and investors can understand the natural capital under their stewardship, enabling them to: i) better understand their risks and opportunities, making them better equipped to plan mitigation actions (eg. sourcing alternatives if current sourcing landscapes are at risk of drought); ii) protect and strengthen their reputation with investors and customers, some of whom already mandate transparency on nature; and iii) prepare themselves for upcoming regulations (e.g. CSRD).
- Quantify: Natural capital accounting** is used to quantify the natural assets (stocks), the services these stocks provide (ecosystem service flows) and to quantify the value they provide to the business and to society. To generate an accurate picture of stakeholders and ecosystem service beneficiaries, this should take the full socio-ecological landscape into consideration – beyond the area directly controlled by a single land-steward. For example, a mining company should consider going beyond the mine site and concession and include the broader landscape in which it operates. By preparing natural capital accounts, a corporate or investor identifies and measures the biophysical state of its natural capital assets and their ecosystem services (using a set of aligned metrics, e.g. TNFD metrics) and quantifies the associated value

⁵ In the first instance, the journey is outlined for natural asset custodians, eg. a forestry company stewarding its timberland. Important next steps include (i) defining the equivalent journey for companies or financial institutions who depend on natural capital across their value chains, but do not directly own natural assets themselves, and (ii) mapping and attributing value in a landscape where there are multiple beneficiaries (eg. where multiple actors make shared investments into a single ecosystem).

of this natural capital to business and wider society, using an agreed valuation methodology (e.g. the International Foundation for Valuing Impacts and Value Balancing Alliance's impact accounting methodology). This step uses standard accounting rules: natural capital accounts can be prepared using trusted frameworks (e.g. UN System of Environmental Economic Accounting (SEEA)) and assured against established standards (e.g. ISO14054).⁶ By completing this step, a corporate or investor can make more informed strategic decisions using consistent and comparable data, demonstrate nature-positive industry leadership, and also unlock conversations with investors and off-takers to realise tangible business value (e.g. through green premiums, enhanced social license to operate, additional payments for ecosystem services such as carbon credits, or access to preferential lending rates) based on the value it is creating for business and wider society.

- 3) **Recognize: Natural capital is recognized in financial accounts**, which involves the full financial accounting of combined natural and financial assets and liabilities, and, via events such as transactions or contracts, recognition of the financial value of nature for asset custodians. Through a single set of integrated accounts, financial accounting allows for complete integration of natural capital within decision making and reporting through a single, integrated balance sheet and income statement. Through full recognition against international accounting requirements (eg. IFRS, IAS 38), companies can include natural capital assets and liability financial statements and profit and loss statements, capturing their full contribution to nature. The impact on the balance sheet will depend on the type of asset being recognized, with each case requiring its own assessment (e.g., implications for amortization). For instance, balance sheets may be negatively impacted if natural asset extent or condition deteriorates. Further, intangible assets recognized under IAS 38 may have different implications compared to tangible assets, such as land.

The good news is that leading corporates and investors have begun the journey. Over 500 organizations with \$17.7 trillion in assets under management have committed to natural capital assessment by adopting TNFD. Pioneering companies like Forico, an Australian forestry company, have conducted natural capital accounting with demonstrable benefit to business, and SLB, a French forestry company saw a 60% increase in Earnings Before Interest, Taxes, Depreciation, and Amortization (EBDITA), and secured cheaper capital from Banque de France, following its natural capital accounting exercise. Similarly, Natural Asset Companies have been successfully set up, mobilizing capital to land-stewards to reward nature uplift. Yet, such exemplary cases remain few and can be dependent on location or context-specific enabling environments. The full integration of nature in financial accounting requires significant shifts in the enabling market infrastructure, including supportive regulation and clear, aligned standards for measurement and valuation.

⁶ Further harmonization is needed between technical standards. Convenors, such as Capitals Coalition can support harmonization as standards continue to evolve.

Building the market infrastructure for natural capital value recognition

The three steps along the journey from value discovery from natural capital assessment to recognition of natural capital's financial value in a company's financial accounts represent the first steps towards a market infrastructure which recognises nature's value.

Beyond companies, the financial sector and governments must act to put nature on the balance sheet, make nature investment attractive, and direct flows of capital towards the preservation and regeneration of land- and seascapes. Rewarding nature on the balance sheet through government and regulator action will work in parallel to company and sector action (figure 2):

- 4) **Market pricing of nature-related assets and liabilities:** Investors, insurers and bankers, should reflect the status of natural capital in cost of capital, asset valuation, risk assessment, underwriting, pricing, and coverage exclusions. This will enable new debt products, securitization instruments, credit and risk transfer structures, and project and infrastructure finance vehicles.
- 5) **Codification and promotion of natural capital valuation:** Governments and central banks should use budgetary, fiscal, policy and regulatory instruments to codify and promote natural capital valuation. For example, full stewardship of natural capital assets and liabilities on sovereign balance sheets will allow governments to assess their net asset position and make more informed decisions about sustainable borrowing and prudent investing. Similarly, capital adequacy frameworks should reflect exposure to nature-related risks, incentivizing investment in regenerative assets.

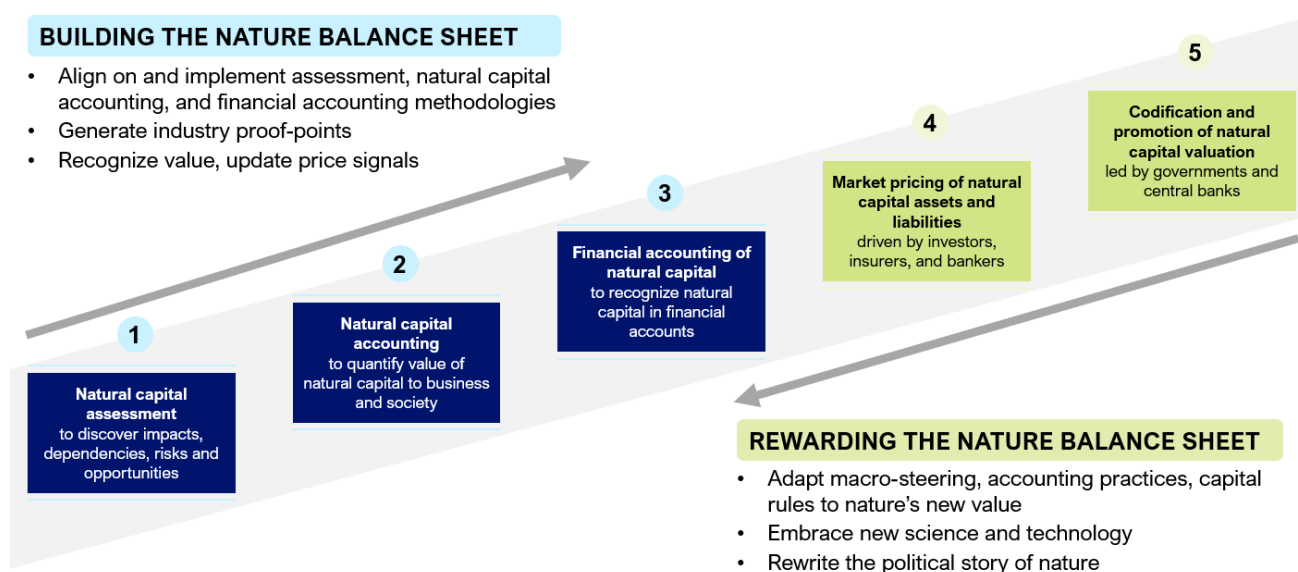


Figure 2. Scaling up nature on the balance sheet

A MOUNTAIN TO CLIMB: RECOGNIZING AND REWARDING NATURE'S VALUE

ACTIONS & OUTCOMES

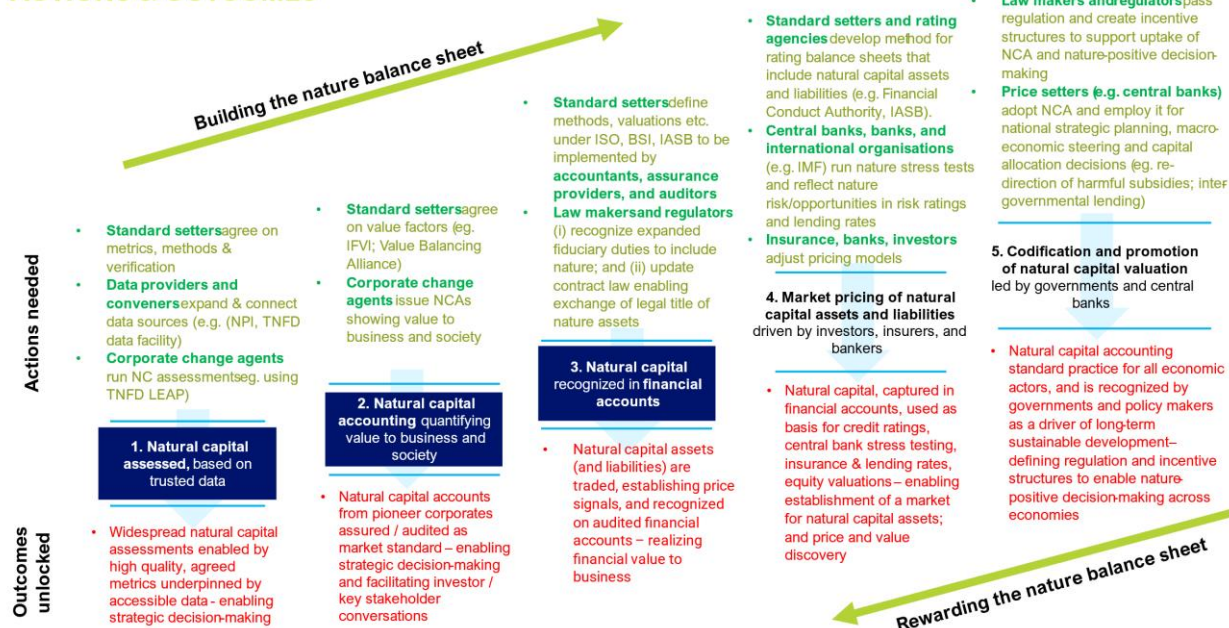


Figure 3. Actions and outcomes for each step on the journey

The market infrastructure for natural capital value recognition relies on **core enablers** with the power to catalyse the market shift: (A) data, metrics & method providers; (B) standard setters; (C) assurance providers, auditors & actuaries; (D) law makers and regulators; (E) price setters and enablers. Two further actors also have critical roles to play: corporate changes agents (e.g. company accountants, technical specialists and general counsel) need to develop capacity in building and using natural capital balance sheets; and societal enablers (e.g. regulation, policy, and public opinion) can incentivise and reward the approach. Together, these actor groups will enable natural capital custodians to take the steps – from natural capital assessment to real value capture, and reward from the macroeconomic system.

The roadmap defines priority short and long-term actions for each enabler. As initial steps, between now and COP30, all seven enablers can start by consolidating use cases, and developing methods and guidance (e.g. on metrics, financial recognition, and nature risk rating). These initial steps can create the right conditions for other enablers to raise ambition; many of these actions are interdependent and build on each other. For example, aligned metrics for measuring nature dependencies and impacts and risks and opportunities support the uptake and application of robust standards. Trusted assurance standards can help mitigate litigation risk for companies conducting nature-related reporting, and in turn, building confidence in an enabling legal architecture through 'safe harbours' will incentivise more companies to conduct robust nature-related reporting. Regulatory and policy shifts can accelerate the delivery of the roadmap (e.g. central banks carrying out nature stress-tests as standard, and using results to influence policy; governments mandating natural capital assessment and accounting). Together, these actions would create the enabling conditions needed for a new economic system, in which nature underpins economic transactions, and the full value of nature is recognized.

Public policy has a critical role to play in creating the new economic system we need: governments can incentivise investment in nature by recognising it as a core aspect of national wealth. The UN SEEA framework, which is supported by the Natural Capital Protocol, lays out a methodology for

natural capital accounting at national level. As of June 2024, over 90 countries globally have begun compiling using UN SEEA to produce Natural Capital Accounts.⁷ The Network for Greening the Financial System (NGFS) encourages systematic assessment and recognition of material nature risk in central bank scenarios and the supervision of financial institutions, and has established a comprehensive framework for nature risk assessment.⁸ In a similar vein, the Coalition of Finance Ministers for Climate Action has made a public call for Ministers of Finance to use natural capital valuation tools for policy and decision-making. Yet, there are limited examples of natural capital satellite accounts driving public policymaking. Nature-negative investment decisions and harmful subsidies continue. As well as establishing a roadmap for how companies can put nature on their balance sheets, we need a deeper integration of natural capital valuation into national accounts and – critically – public decision making. In turn, this will incentivise and reward nature-positive action from corporates, and investment from financial institutions.

	SHORT-TERM (TO COP30)	LONG-TERM (TO 2030)
SOCIETAL ENABLERS (POLICY AND PUBLIC OPINION):	<ul style="list-style-type: none"> • Governments incentivize 'nature-positive' production by re-directing harmful subsidies • Cultural influencers advocate for protecting and restoring natural capital as a political priority • Consumers send price signals by demanding and purchasing 'nature-positive' products 	<ul style="list-style-type: none"> • Government subsidy reform and consumer pressure make 'nature-positive' products price-competitive • Cultural influencers mainstream a new and inspiring political narrative for nature
E. Price setters and enablers	<ul style="list-style-type: none"> • Central Banks develop method for conducting nature-stress tests and adjust capital adequacy rules • Ratings agencies develop method for incorporating nature into company risk ratings • Exchanges define rules for transparent listing and transfer of nature assets 	<ul style="list-style-type: none"> • Central banks, banks, and international organisations (eg. IMF) run nature stress tests and reflect nature risk/opportunities in risk ratings and lending rates; and use NCA for strategic planning • Insurance, banks, investors adjust pricing models
D. Law makers and regulators	<ul style="list-style-type: none"> • Regulators permit 'safe harbours' for pioneer companies to test nature reporting, with reduced litigation risk • Law makers initiate process of expanding fiduciary duties and incentives for nature conservation and restoration • Regulators require disclosure for nature-related risks and opportunities (ISSB, CSDR) 	<ul style="list-style-type: none"> • Law makers and regulators (i) recognize expanded fiduciary duties to include nature; and (ii) update contract law enabling exchange of legal title of nature assets • Law makers and regulators pass regulation and create incentive structures to support uptake of NCA and nature-positive decision-making
C. Assurance providers, auditors & actuaries	<ul style="list-style-type: none"> • Professional bodies define necessary conditions for recognizing natural capital on financial balance sheets, to be implemented and mainstreamed by leading firms 	<ul style="list-style-type: none"> • Accountants, assurance providers, and auditors implement standards on metrics, methods, verification and value factors
B. Standard setters	<ul style="list-style-type: none"> • Standard setters consolidate and clarify alignment & gaps across leading standards for natural capital accounting and assurance, including on NCA recognition in financial accounts (Eg. TNFD LEAP, NCP, ISO 14054, ISSB) • Standard setters clarify trusted value factors for NCA (Eg. IFVI; Value Balancing Alliance (VBA)) 	<ul style="list-style-type: none"> • Standard setters agree on metrics, methods & verification (eg. ISO, BSI, IASB) and value factors (eg. IFVI; VBA) • Standard setters and rating agencies develop method for rating balance sheets that include natural capital assets and liabilities (eg. Financial Conduct Authority, IASB)
A. Data, metrics & method providers	<ul style="list-style-type: none"> • Convenors align on essential metrics for NC assessment and accounting (e.g. TNFD, Nature Positive Initiative (NPI), and other convenors) and signpost trusted nature data sources and tech providers (via TNFD Nature Data facility) 	<ul style="list-style-type: none"> • Data providers and convenors expand & connect data sources (e.g. NPI, TNFD data facility)
CORPORATE CHANGE AGENTS:	<ul style="list-style-type: none"> • Land stewards (including companies) use landscape proof point approach to derive business value from thriving nature • Communities of practice established to scale proof point approach across sectors; sharing best practice and building capacity (eg. in-house accountants, lawyers, investors and insurers) for using natural capital accounting as a decision-making tool (eg. sector communities in forestry and mining) 	<ul style="list-style-type: none"> • Corporate change agents issue NC assessments (e.g. using TNFD LEAP) and NC accounts showing value to business and society, and use to inform decisions as standard

Figure 4. **Priority actions for enablers to put nature on the balance sheet**

Proof points to prove and scale value creation

A robust infrastructure can enable proof points, demonstrating the feasibility of natural capital valuation for financial and economic decision-making – starting with individual **landscapes and companies**, with a view to scaling across entire **sectors**.⁹ Proving value realisation from nature (starting from landscape-level) will help to catalyse shifts for each enabler, drive alignment, generate learnings for how to replicate and scale up proof points, and identify gaps which need to be filled.

- (i) **Landscapes and companies:** The simplest proof points start with landscape-level natural capital accounting by individual landscape stewards, such as companies, civil

⁷ https://policyintegrity.org/files/publications/NCA_Report_vF.pdf

⁸ <https://www.ngfs.net/system/files/import/ngfs/medias/documents/ngfs-conceptual-framework-nature-risks.pdf>

⁹ Each sector interacts with nature differently, ranging from fully extractive (e.g. mining), to heavy land use (e.g. agrifood), renewable resource management (e.g. forestry). Therefore approaches to defining nature-based routes to value will vary by sector. Sector-specific convenors offer ideal platforms for capacity building (e.g. ISFC for forestry).

society or indigenous peoples and local populations. Success for these initial proof points depends on strong leadership from the landscape stewards and enabling actors, notably catalytic support from effective data and monitoring solutions, standard setters, and auditors as well as assurance companies. Companies would benefit from updates to legal architecture, giving them the space to experiment with natural capital accounting and disclosure with reduced litigation risk. Development of landscape proof points will also require awareness of potential unintended consequences, including land-grabbing for natural capital value extraction: robust legal frameworks need to protect the rights of traditional land custodians.

Companies are already securing value from this approach: Forico's natural capital accounting¹⁰ significantly enhanced its value and reputation, leading to its acquisition for over A\$1 billion.¹¹ This approach also improved its social license and global recognition, unlocking new investment opportunities. New forms of company are already being entirely built around natural capital. As mentioned above, Intrinsic Exchange Group¹² have developed the Natural Asset Company (NAC): a NAC's equity represents a new class of security designed to incorporate nature's value into the company's enterprise value. One example is Ahtna,¹³ an indigenous-led NAC in North America, established to finance the conservation of more than one million acres of land.

- (ii) **Sectors:** whole sectors (such as forestry or mining) can scale up natural capital valuation as industry-wide practice across a range of value chains and natural asset classes, regions and ecosystems. Sector transformations will build on exemplar landscape and company proof-points, sharing lessons learned and examples of good practice in pre-competitive spaces through industry bodies of sector-wide communities of practice as the basis for replication (eg. through ISFC or ICMM).

PROOF POINT ARCHETYPES





	Landscape and company value realisation	Sector-wide transformation
 Scale	Individual landscape or company	Sector-wide
 Lead actors	Landscape stewards (companies, IPLC, civil society)	Companies; industry bodies and communities of practice
 Key enablers	Data, metrics & method providers; Standard setters; Assurance providers, auditors & actuaries	Data, metrics & method providers; Standard setters; Assurance providers, auditors & actuaries; Law makers and regulators; Price setters and enablers
 Natural capital value creation	Landscape stewards demonstrate and monetize increase in asset value in individual landscapes, e.g. through payments for ecosystem services, improved value chain resilience, green premia, improved social license to operate; Companies demonstrate replicability and scalability by operationalising across their entire portfolios.	Companies, industry bodies or civil society organizations mobilize capital through sector-wide approaches that demonstrate scalability and replicability through standardized approaches

Figure 5. Scaling proof points from landscape and company to sector level

¹⁰ <https://forico.com.au/natural-capital>

¹¹ <https://forico.com.au/news/forico-set-to-continue-as-manager-of-tasmanias-largest-forest-estate>

¹² <https://www.intrinsicexchange.com/>

¹³ <https://www.ahtna.com/>

Next steps: Advancing the Roadmap with COP30 as the breakthrough moment

This is the right moment to build alignment around a shared roadmap and drive action for putting nature on the balance sheet, starting with tangible proof points. Delivering on the actions below will build a drumbeat to Belem, including on:

1. Widespread adoption of the Roadmap for putting 'nature on the balance sheet':

- a. Build a **working group** to refine and deliver on the roadmap, including the leaders from enabler groups that attended the NBI Bellagio Convening.
- b. **Secure support** (and commitments where relevant) from key stakeholders **across enabler groups**, and from **key influencers** in the nature and finance community (eg. nature NGOs, industry associations, civil society representatives), to advance the roadmap, deliver proof points, or promote public communication efforts in the lead up to COP30.

2. Proof points:

- a. **Deliver the initial set of landscape proof points** currently underway, in partnership with businesses, project developers and asset managers across the mining, forestry, agroforestry sectors. Each proof point will include initial natural capital accounts, quantification of the value creation potential, designed interventions and engagement of key beneficiaries and potential investors to agree 'transactions' that mobilise finance for nature. Each Proof Point type has its own value creation potential: for mining, avoided costs due to strengthened SLO and streamlined permitting; for agrifood, increased revenue due to improved supply chain resilience, and green premia from offtakers; and for forestry, improved revenue due to nature-based transactions (ecosystem service transactions and carbon credits). To realise value while avoiding unintended consequences, two initial critical steps are needed: (i) ensuring the landscape within scope is aligned with socio-ecological context (e.g. locations of adjacent population centres, nearby critical ecosystems); (ii) beneficiary mapping to identify all key stakeholders who may benefit from interventions (e.g., for a mining landscape, this will involve going being mine site and concession). To ensure fair benefit sharing and inclusion of diverse perspectives, meaningful stakeholder consultations with local communities, municipalities, other local businesses, and regulators are an essential part of landscape Proof Point design, following the Integrated Framework for Decision Making.
- b. **Identify and secure the 'next wave' of proof points** to enable scaling (eg. a conservation landscape in East Africa; an FMCG company).
- c. **Scale the approach taken by landscape proof points to catalyse sector transformation**, through building communities of practice: safe spaces for companies to pre-competitively learn from each other, starting with forestry and mining - building on TNFD communities of practice, and via ICMM engagement on mining; ISFC engagement on forestry.
- d. Prepare **announceable moments and milestones at COP30**, including showcasing existing proof point 'transactions', and announcing the 'next wave' of proof point hosts.

3. External engagement and publications

- a. **Host convenings and events at key global milestones** (eg. Villars Summit, London Climate Week, New York Climate Week / UNGA, PRI investor summit in Sao Paulo) to **build momentum to COP30**.
- b. Publish a **flagship publication at COP 30** setting out a clear, actionable roadmap for putting nature on the balance sheet, including the key shifts needed by each enabler

group, and a 5-year plan to realise these shifts to build broader political and market momentum.

This document was prepared by the Nature on the Balance Sheet Consortium, with support from collaborators including: Carl Obst (IDEEA Group), Helen Slinger (Accounting for Sustainability), Mark Schneider (Individual capacity), Rayne van den Berg (Chief Value Officer, Value Australia – a Capitals Coalition hub), Rob Zochowski (International Foundation for Valuing Impacts - IFVI), Robyn Seetal (Capitals Coalition Ambassador), Teresa Nielsen (Individual capacity)