



Draft State of Nature Metrics for Piloting

Post-Consultation Updates
17 January 2025

Important note:

The information on these slides remains in draft and will be updated through piloting in 2025. The metrics are **not yet ready** to be used in business processes and decision-making and **must not** be used to make any claims relating to nature positive.

**NATURE
POSITIVE
INITIATIVE**

Why state of nature metrics?

State of nature metrics assess the condition and extent of ecosystems, and species population size and extinction risk, including positive or negative changes






19 December 2022 – The Kunming-Montreal Global Biodiversity Framework (GBF) is agreed at COP15, setting a new course for halting and reversing nature loss by 2030.




Two years on.. We have seen a big uptick in momentum to tackle the nature crisis from both state and non-state actors, yet it is unclear to what extent we are progressing towards this ultimate goal.

State of Nature (SON) metrics are essential for monitoring whether our efforts are contributing to nature's recovery, a fundamental aspect of any comprehensive nature strategy. Measuring every aspect of nature is not feasible or practical. Therefore, we seek to identify a small set of metrics that can act as an indication of nature's overall health.

We need to:

-  Demonstrate **verifiable progress** towards achieving Global Nature Goal to “halt and reverse” nature loss by 2030
-  Ensure **accountability** and that leading actors are **recognized** for their efforts through measuring contributions to ‘nature positive’ outcomes
-  Support and enable organisations to not only **credibly prevent new loss** but also **actively restore nature**

But we're missing:

-  **Consensus** on a set of credible set of metrics that measure the state of nature
-  **Universally applicable, credible practical and affordable** state of nature metrics, across **scales, users and geographies**
-  **Clarity** and **confidence** for companies to accelerate their contributions to a nature positive world and begin their journey

Metric development and roll-out model

This is a fast-paced development process aiming to fill the gap around aligned state of nature metrics as quickly as possible. To help achieve rapid and widespread uptake, they are intended to be integrated into existing frameworks and standards.

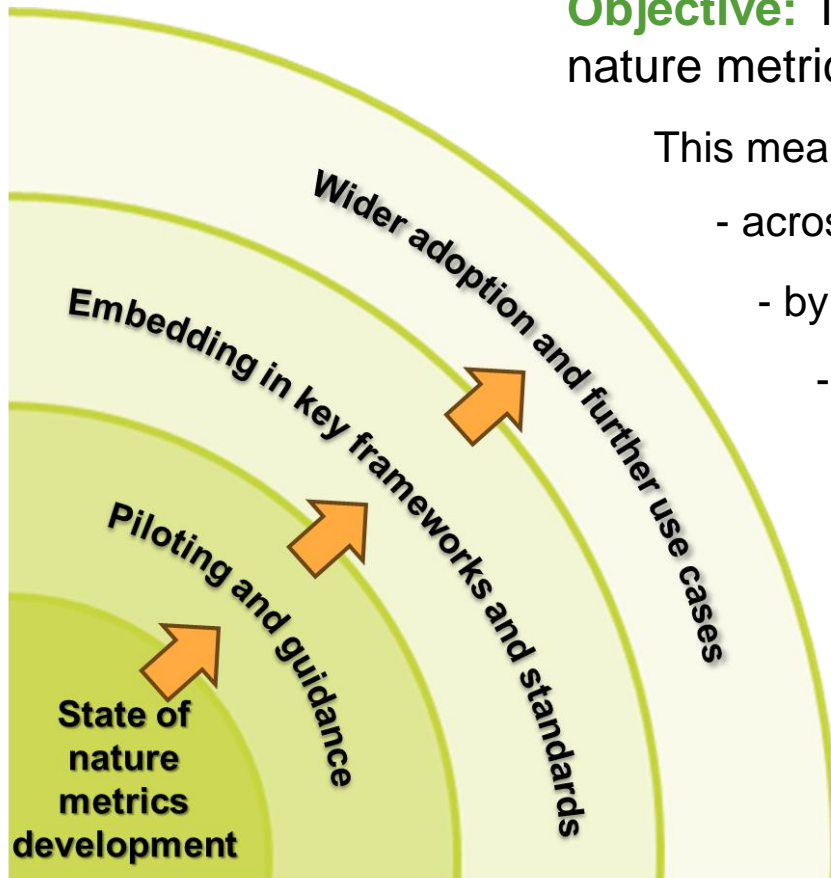
Objective: To design a **minimum** set of **universal** state of nature metrics for **mass adoption**

This means ensuring that they can be used..

- across a variety of use cases,
- by stakeholders of varying capacity,
- and across different environmental and social contexts.

Metric design criteria:

- ✓ Credible and science-based
- ✓ Responsive
- ✓ Flexible
- ✓ Aligned
- ✓ Accessible and affordable
- ✓ Auditable

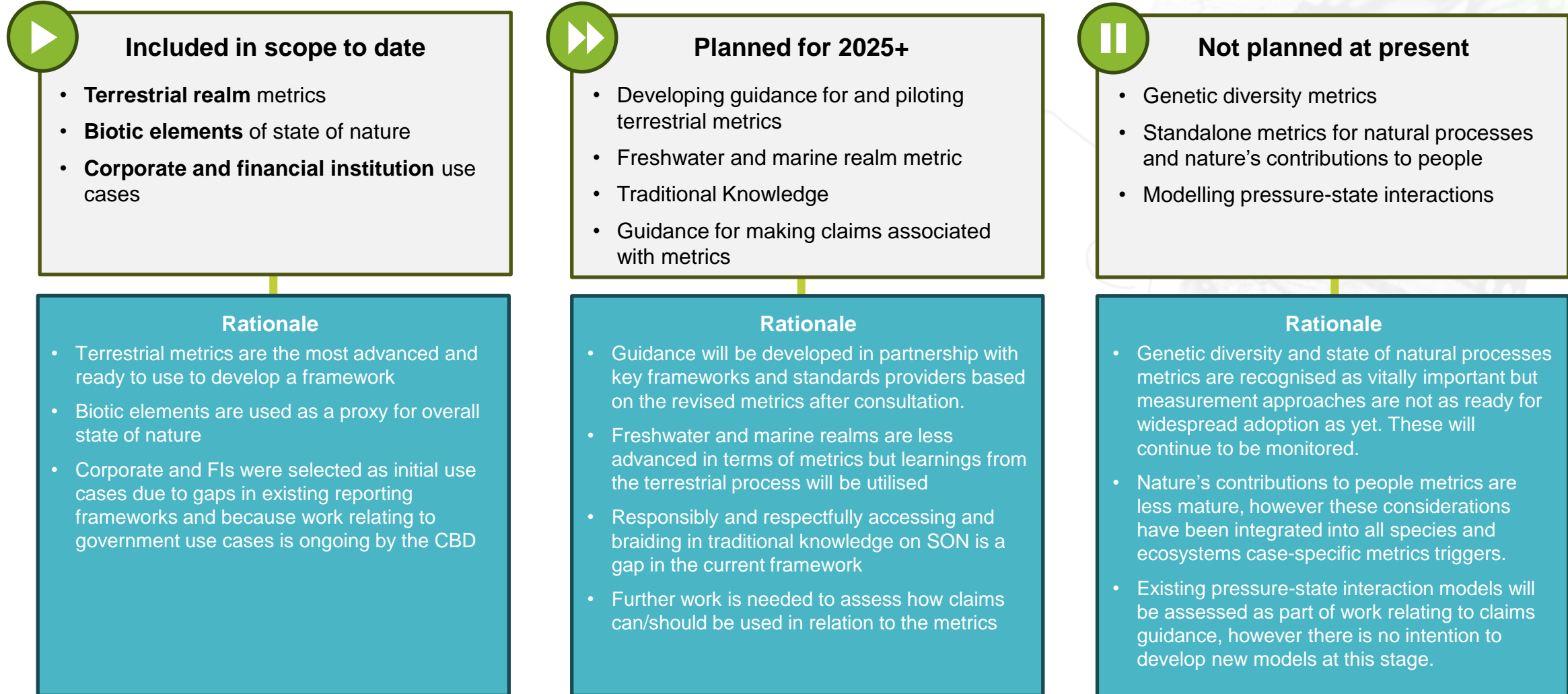


Current status: The terrestrial state of nature metrics are in draft ready for pilot testing.

Future roll-out: In 2025, metrics pilots will help inform the development of guidance and how they can be embedded in existing frameworks and standards from 2026.

Scope






The work so far has focussed on terrestrial metrics for corporate and financial use cases, however this will be expanded on in 2025.

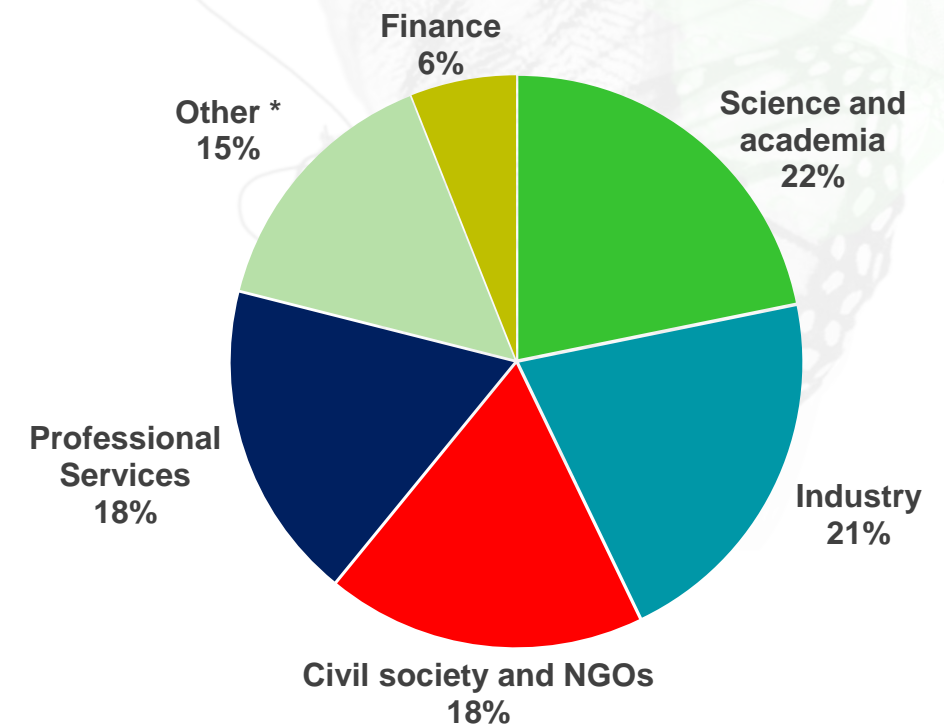


Summary of stakeholder feedback

134 organisations completed the consultation survey from a range of industry sectors, finance, science and academia, civil society and professional services. We also engaged over 700 stakeholders across 15 sessions at COP 16, the Global Nature Positive Summit and the IUCN Leaders' Forum.

Feedback can be categorised into five overarching themes:

	Framework Clarity and Structure <i>Understanding key structural elements and their purpose</i>
	Practicality for Adoption <i>Feasibility for uptake, considering data accessibility, costs, and expertise</i>
	Indicator Coverage <i>Appropriateness of the 9 Indicators for measuring environmental changes</i>
	Metrics <i>Clarity, credibility, and auditability of the metrics</i>
	Alignment with Existing Frameworks <i>Compatibility of the Framework and Metrics with existing frameworks</i>



* Other included individuals, industry and membership associations, technology specialists and consultants.

Headline messages from the consultation

Responses to the consultation findings can be categorised by updates to the metrics framework, to the supporting narrative and to future workplans

Consultation findings

- Strong support for a unified set of SON metrics
- Broad feedback, but missing Government and IPLCs
- Polarised feedback between and within stakeholder groups
- Chorus call for more clarity and guidance
- Current scope and future focus areas not clear to many
- Clarity and practicality a concern for industry and finance
- Integration with existing Standards is unclear
- Pilots needed to validate, refine and build trust in metrics



Framework updates

- Simplified framework and metrics tables
- Removed ground truthing from entry-level
- Options for simplified case-specific trigger criteria

Narrative updates

- Renamed and refined metric maturity levels
- Clarified current scope and future workplan
- Clarified use cases and integration with standards
- Clearer communication on framework elements

Future work

- Technical guidance
- Nature positive claims and recognition
- Freshwater and marine metrics
- Engaging IP&LCs
- Natural processes and ecosystem services

Use cases – For the Piloting Phase

State of nature metrics can be applicable for a wide variety of use cases. Specific focus areas have been identified for this phase.

Focus user type:

Corporate

Financial institution

Focus scales:

Site

Landscape

Company

Value chain or portfolio assessment

Focus objectives:

Voluntary disclosure (e.g. TNFD, GRI)

Compliance (e.g. CSRD or EUDR)

Target setting and tracking (e.g. SBTN)

Corporate nature positive strategies

Note:

Whilst corporates and financial institutions are the initial focus users, sustained nature positive outcomes will require collaboration across a wide range of user types, e.g. national and sub-national governments, landowners and land stewards, and thus metrics are designed such that they are not only applicable to the focus users.

Important considerations when applying metrics to use cases include:

1. Scale

Metrics should be measured at the scale/resolution appropriate for the decision-making for that particular use case.

2. Stakeholder engagement

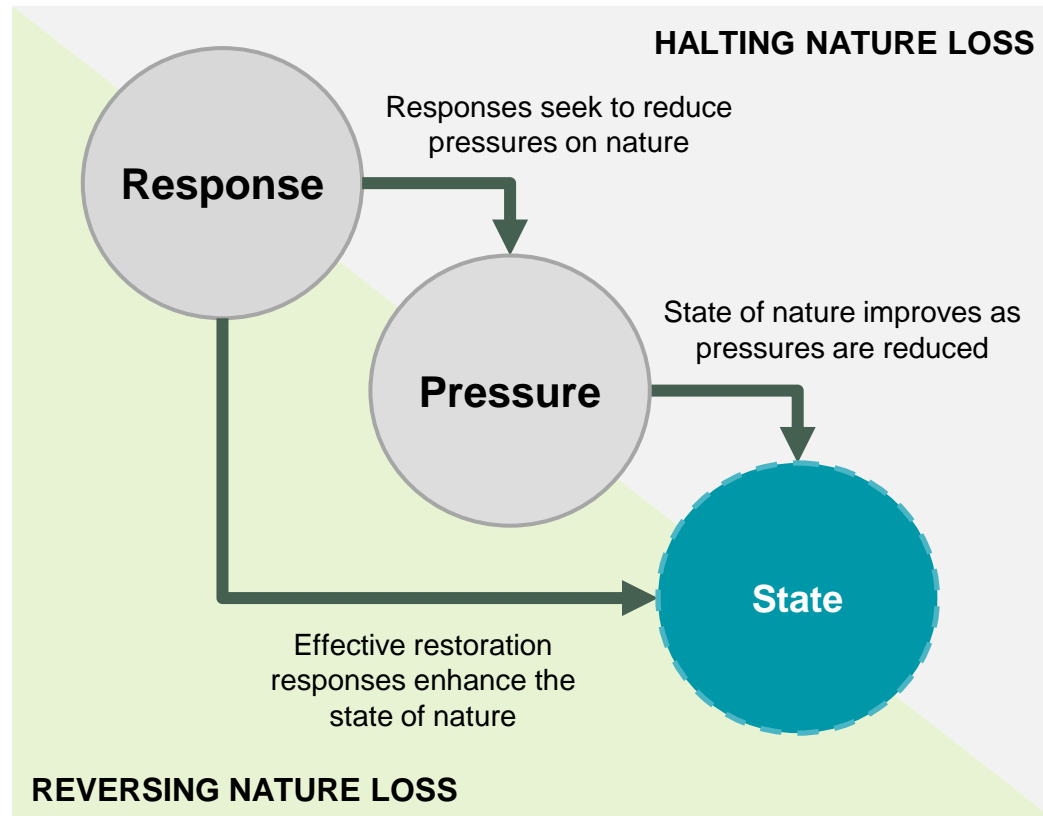
All use cases will require inclusive and responsible engagement with different stakeholder groups, particularly if traditional and local knowledge is being accessed. Relevant guidance to support companies and financial institutions in this includes but is not limited to:

- i. TNFD Guidance on engagement with Indigenous Peoples, Local Communities and affected stakeholders (September 2024) – [link](#)
- ii. SBTN Stakeholder Engagement guidance (October 2024) - [link](#)

Pressure-state-response

The state of nature metrics fill an important gap in key monitoring and reporting architecture and are complementary to existing pieces of the puzzle

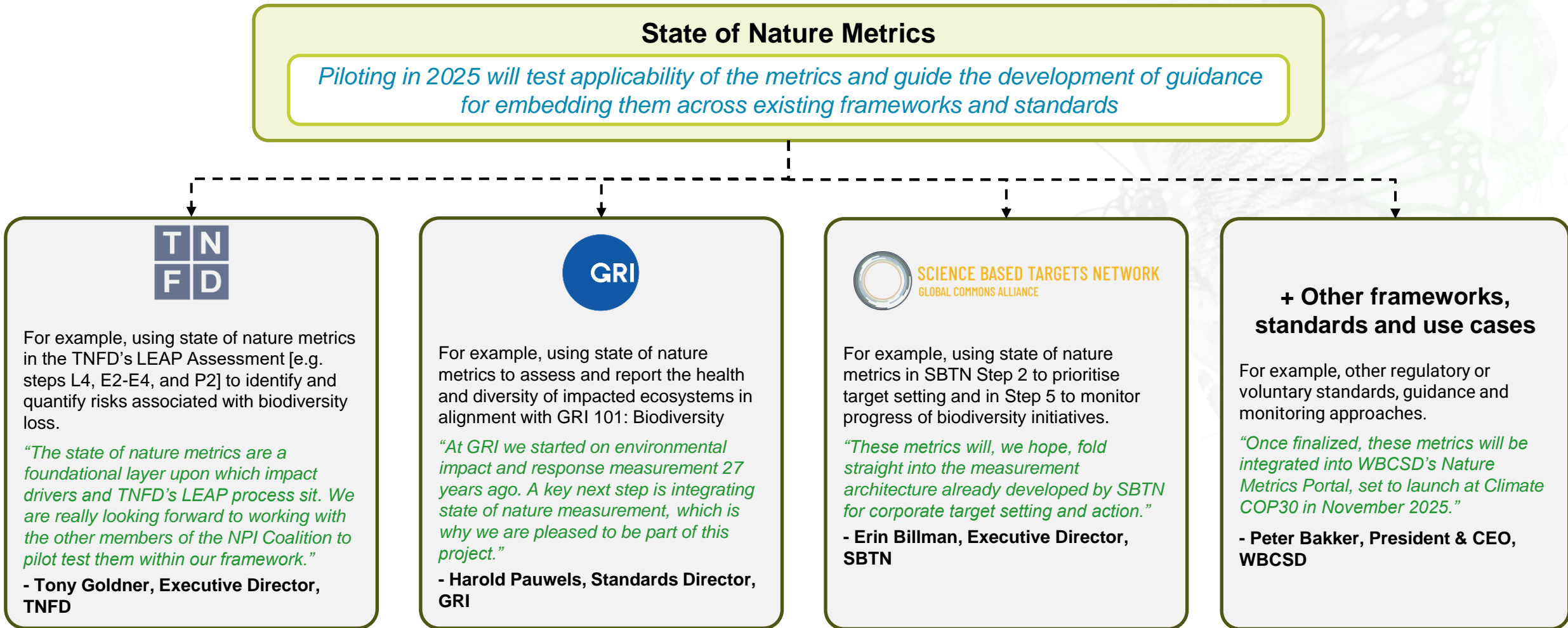
Completing the pressure-state-response framework



- The pressure-state-response framework provides a useful conceptual model for how we can halt and reverse nature loss and it is utilised in nature standards/frameworks such as TNFD, GRI and SBTN.
- Pressure and response metrics are already relatively well-established but a gap exists around measuring the state of nature.
- Measuring the state of nature is vitally important because it tells us whether our pressure and response actions are having the desired effect, i.e. are our nature strategies resulting in improved outcomes for nature?
- This holds true even where it may be challenging to attribute changes in state of nature to specific actions or organisations. Fundamentally, if the state of nature is not improving in the area it suggests we may need to reinvest resources into a different set of pressure reduction and response actions.
- It is important to note that state of nature metrics are not intended to replace pressure and response metrics, but rather to complement them.

Embedding in frameworks and standards

The state of nature metrics are designed to be embedded in existing frameworks and standards for rapid rollout and widespread uptake



Metrics framework components

1. Indicators

A quantitative or qualitative factor or variable that provides a simple and reliable means to measure the state of nature, including positive upwards or downwards trends (e.g. ecosystem extent and ecosystem condition). An indicator can be measured through one or multiple metrics.

Example

Ecosystem Extent

2. Metrics

A system or standard of measurement that is quantifiable and is used to track, compare, and assess indicator performance. NB: NPI **does not specifically recommend** named metrics (e.g., Simpson Diversity Index), but provides a description with key characteristics. Named metrics will be trialled during piloting.

Area of loss, gain and net change in ecosystem extent (ha)

3. Granularity level

Specifications for different scales and levels of detail at which metrics should be measured. The appropriateness of a particular granularity level may vary with user capacity, data availability and/or use case.

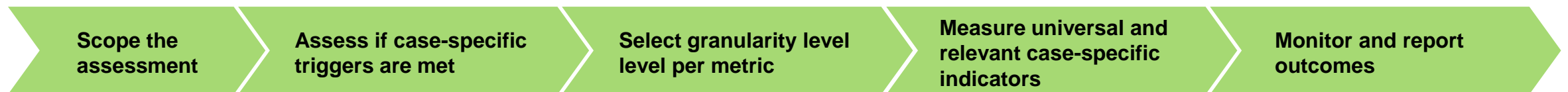
- *Classification of ecosystem to be at least GET (Global Ecosystem Typology) Level 3*
- *Spatial resolution at $\leq 30m$ for land-cover change products.*

4. Case-specific metric triggers

Criteria for identifying which case-specific metrics need to be measured.

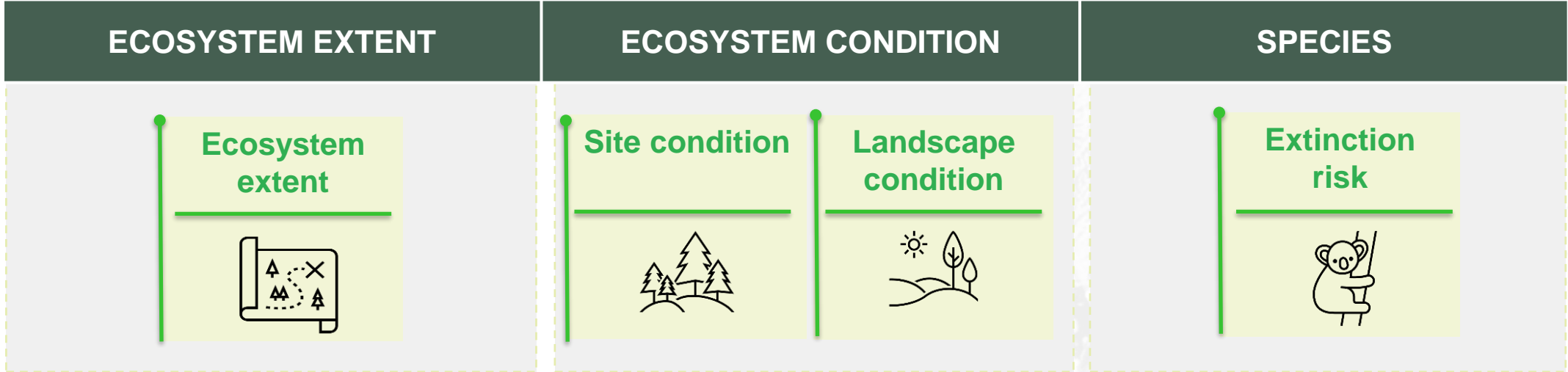
Critically Endangered ecosystems, and ecosystems showing rapid declines in area at local or global scales.

High-level framework implementation process

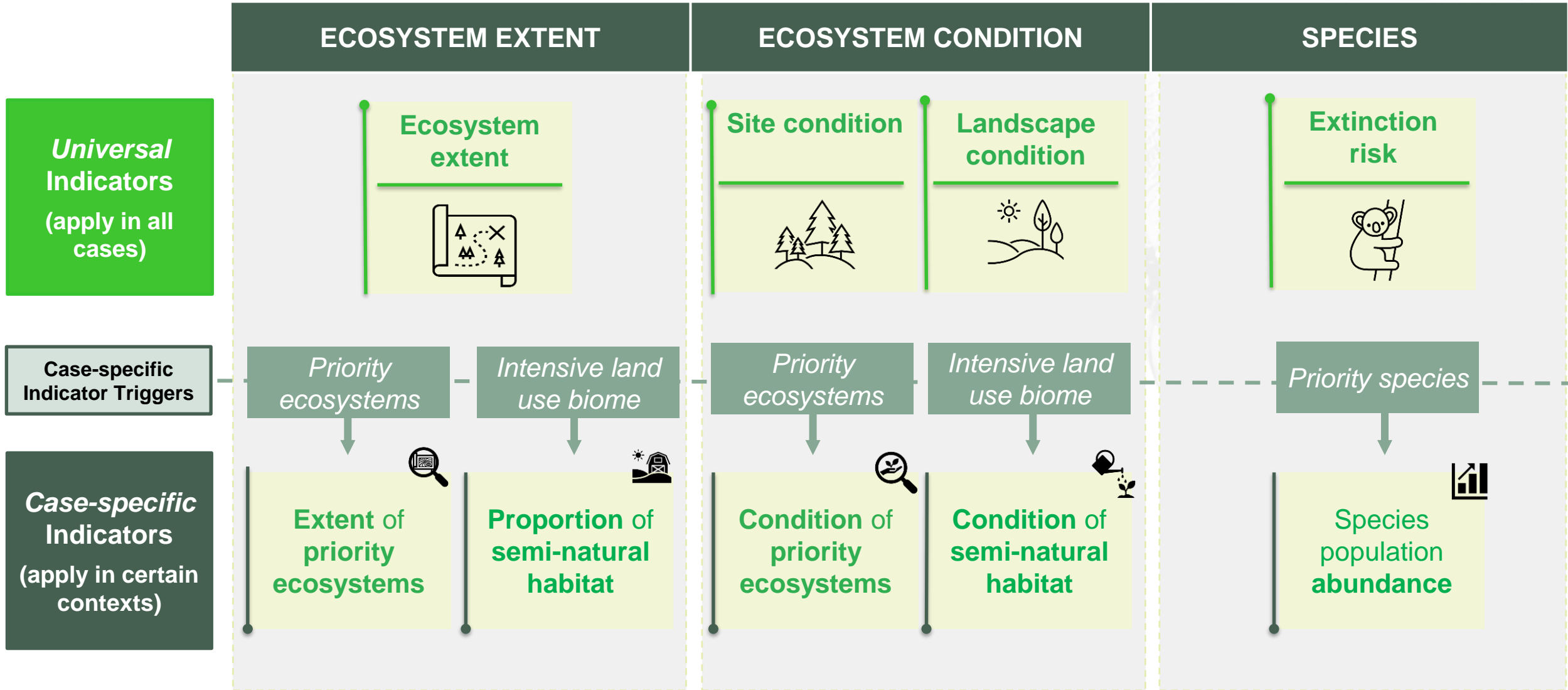


Framework: Indicator overview - Universal indicators

Universal Indicators
(apply in all cases)



Framework: Indicator overview – All indicators



Draft State of Nature Metrics Framework – for piloting

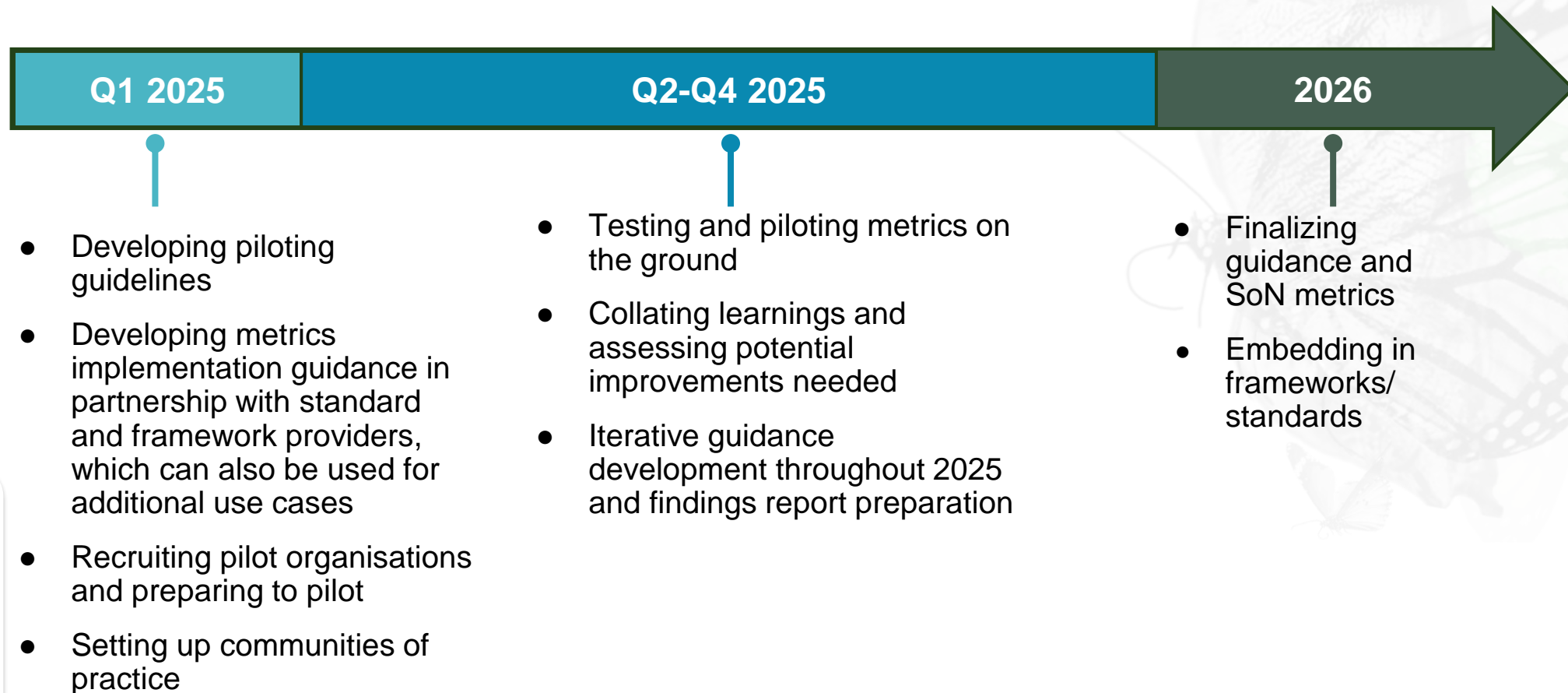
Indicators (IND)		Metrics	Granularity level	Case-specific metric triggers
Ecosystem Extent	Ecosystem Extent & Classification (IND 1)	Area of loss, gain and net change in extent (ha)	Low, Medium, High	N/A
	Extent of Priority Ecosystems (IND 1.1)	Area of loss, gain and net change in extent (ha)*	Medium, High	Priority ecosystem trigger criteria
	Proportion of natural or semi-natural habitat (IND 2)	Area of loss, gain and net change in average proportion of natural and semi-natural habitats within each km2 (%)	Low, Medium, High	Intensive land use biome trigger criteria
Ecosystem Condition	Site Condition (IND 3)	Area and change since baseline by condition class (ha per condition class)	Medium (under development), High	N/A
	Condition of Priority Ecosystems (IND 3.1)	Value and change since baseline by condition class (ha per condition class)*	Medium, High	Priority ecosystem trigger criteria
	Landscape Condition (IND 4)	Values and change in a) landscape intactness, b) structural connectivity, and c) functional connectivity	Low, Medium, High	N/A
	Condition of semi-natural habitat (IND 5)	Area and change since baseline of natural and semi-natural habitat by condition class (ha per condition class)	Medium, High	Intensive land use biome trigger criteria
Species	Species Extinction Risk (IND 6)	Species extinction risk score and trend	Low, Medium, High	N/A
	Species Population Abundance (IND 7)	Change in the number and proportion of priority species with: 1) stable or increasing populations, and 2) declining populations	Low, Medium, High	Priority species trigger criteria

Key	Universal metric
	Case specific metric

*Case-specific metric is the same as the universal one but applied at a higher granularity level and only for areas meeting the trigger criteria

Piloting timeline

The timeline focuses on rapid development of aligned initial guidance for pilots, followed by iteration through the year



To get involved in the metrics piloting, please contact one of the NPI's 27 core organisations

Open questions to address

There are still open questions raised in the consultation period that will be explored further in the piloting phase, or as part of the NPI's ongoing workplan. External initiatives, such as the TNFD's Nature Data Public Facility, could also help to address some of the systemic issues around data availability and costs.

Overarching questions for the pilots:

How well do the metrics perform? How sensitive are they?

Are these metrics and associated data sets affordable and accessible to companies of various sizes and technical capacity, across granularity levels?

Do these metrics work in supply chains? Portfolios? Across projections of investment risk?

How useful is the draft guidance developed? What additional guidance may be required?

Technical questions for the pilots:

Including, but not restricted to:

- *Identifying appropriate data age requirements*
- *Understanding the implications of scale and use cases in metric application at different granularity levels and providing guidance for different use cases.*
- *Ground-truthing needs and characteristics*
- *Identifying low and medium measures for site condition*
- *Sensitivity of trigger approach and criteria*
- *Definitions of “surrounding area”, land use classes, semi-natural habitat, core area, locally important species/ecosystems and connectivity distance.*

Reminder: Issues/topics also being addressed in next phases

Terrestrial metric guidance development

Assessment of needs for claims and recognition guidance

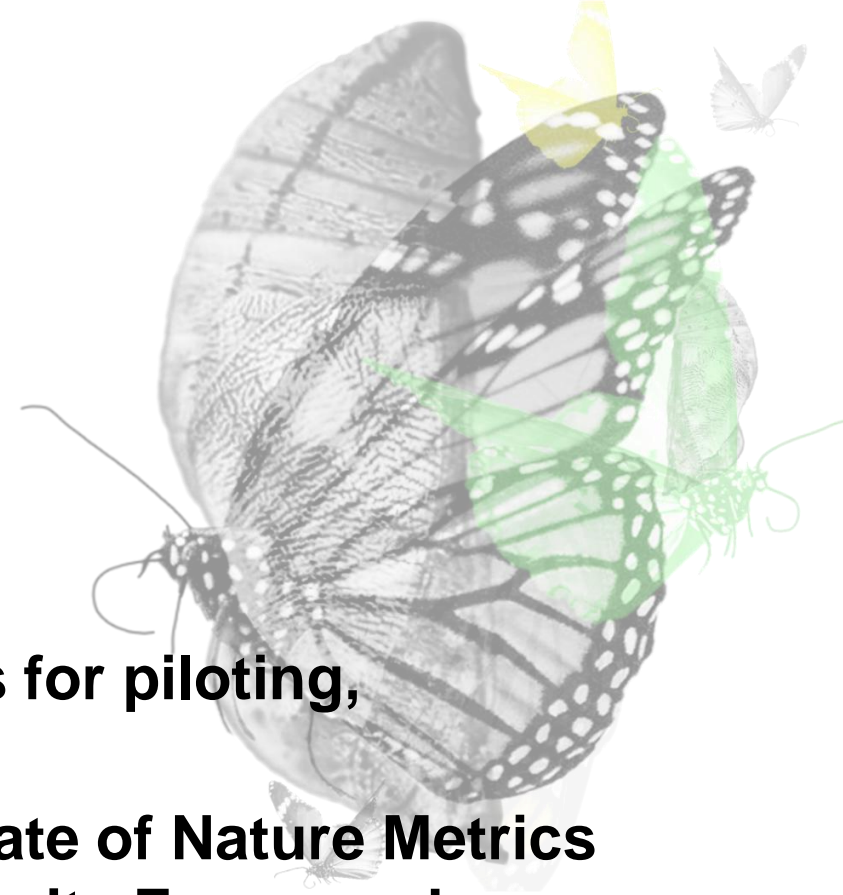
Freshwater and marine metric frameworks

Dialogues and capacity building on incorporating traditional knowledge

Appendices

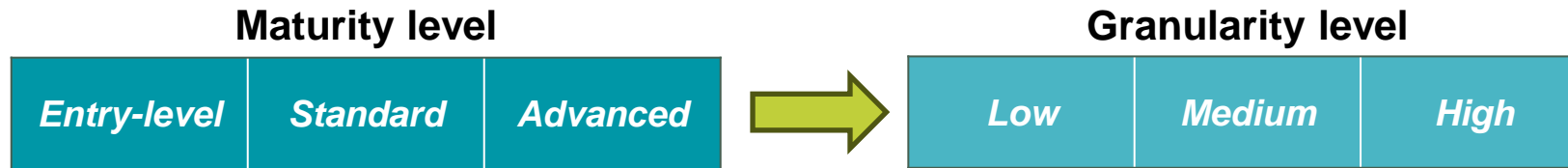
A: Detail on key updates to the State of Nature Metrics for piloting, following consultation feedback

B: Summary of key areas of alignment between the State of Nature Metrics for piloting and the Kunming-Montreal Global Biodiversity Framework



Appendix A: Key updates

1 Level naming and application



- Rationale**
- Can be more easily integrated into existing frameworks and standards
 - Can apply to different use cases as well as variations in user capacity

2 Framework simplification

Per indicator:
3 levels of triggers
3 metrics
3 sets of measurement specifications



Per indicator:
1 trigger
1 metrics
3 levels of granularity

- Reduces complexity and improves navigability



Appendix A: Key updates

3 Aligned naming with trigger criteria

Trigger name	Case-specific indicator name	Trigger name	Case-specific indicator name
Ecosystems	Extent of Highly Threatened, or High Local Value Ecosystems	Priority ecosystems	Extent of Priority Ecosystems

- Clarifies purpose of each trigger by linking to its associated metrics

4 Renamed condition indicators and incorporated connectivity as a key component of condition

Indicator	Indicator
Ecosystem condition	Site condition
Landscape intactness	Landscape condition

Values and change in a) landscape intactness, b) structural connectivity, and c) functional connectivity

- Improves navigability of framework
- Provides a more complete measurement of SoN

5 Extended application of locally important species/ecosystems trigger and incorporated rapidly declining species and ecosystems to help prioritise protecting high integrity species ecosystems (illustrated on next slide)

- Feedback highlighted need to better capture natural processes, cultural and social values, high integrity ecosystems and common species at risk of decline

Appendix A: Key updates

A case-specific metric is triggered when one or more of the underlying criteria apply.

Trigger category	Maturity level	Trigger
Priority ecosystems	Entry-level	Activities impacting highly threatened ecosystems or interacting with areas meeting Key Biodiversity Area or High Conservation Value criteria.
	Basic	Expands to interacting with Other Priority Ecosystems.
	Mature	Expands further to impacting ecosystems that meet criteria for Vulnerable or Near Threatened.
Priority species	Entry-level	Activities impacting highly threatened species, or species meeting Key Biodiversity Area or High Conservation Value criteria.
	Basic	Expands to interacting with Other Priority Species.
	Mature	Expands further to impact on species meeting criteria for Vulnerable or Near Threatened, or common species declining rapidly at a local scale.
Intensive land use biome	Entry-level	Activities within the annual croplands, sown pastures and fields, plantations and derived semi-natural pastures and old fields ecosystem types, as defined in the Global Ecosystem Typology.
	Basic	
	Mature	



Trigger category	Granularity level	Trigger – Meeting at least one of the listed criteria
Priority ecosystems	All	<ul style="list-style-type: none"> Activities impacting highly threatened ecosystems (CR/EN) or interacting with areas meeting one or more Key Biodiversity Area or High Conservation Value criteria Common ecosystems showing rapid declines* in area (for extent metrics) or in area or condition (for condition metrics) at local or global scales Locally important* ecosystems.
Priority species	All	<ul style="list-style-type: none"> Highly threatened species (CR/EN) or species meeting one or more Key Biodiversity Area or High Conservation Value criteria Common species showing rapid declines* at local or global scales Locally important* species.
Intensive land use biome	All	Activities within the annual croplands, sown pastures and fields, plantations and derived semi-natural pastures and old fields ecosystem types, as defined in the Global Ecosystem Typology.

Appendix A: Key updates

6 Case-specific metrics triggered by priority ecosystems are now subcategories of the universal extent/condition metrics and maturity/granularity levels have been shifted to improve consistency

	Indicator	Metric	Granularity (updated naming)		Indicator	Metric	Granularity level
Uni- versal	Ecosystem Extent & Classification (IND 1)	Area of loss, gain and net change in extent (ha)	Low, medium, high	➔	Ecosystem Extent & Classification (IND 1)	Area of loss, gain and net change in extent (ha)	Low, medium, high
Case-specific	Extent of Priority Ecosystems (IND 5)	Area of loss, gain and net change in extent (ha)	Low, medium		Extent of Priority Ecosystems (IND 1.1)	Area of loss, gain and net change in extent (ha)	Medium, high

Previously presented as separate indicators

Low granularity for IND5 was the same as the Medium level for IND1 and required ground-truthing

Now the case-specific metric is presented as a subset (or breakdown) of the universal indicator (IND1)

Low granularity is now not available for the case-specific indicator so that the effort required for levels is consistent

Rationale

- Simplification and clarification of framework
- Reflects that, in practice, users are measuring the same thing (the metrics are the same, the scope and measurement differs)
- The maturity levels are now functionally consistent, e.g. equivalent levels of granularity across entry-level

Appendix B: Aligning with the GBF



The state of metrics are intended to support action to implement the Global Biodiversity Framework and its mission

- 1 The state of nature metrics help measure the **mission** of the GBF:

To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet...

- 2 They also help companies meet **Target 15** on monitoring their impacts on biodiversity to progressively reduce negative impacts and increase positive ones.
- 3 Some state of nature metrics also align with specific 2030 targets and monitoring indicators within the GBF:

Indicator	Connection to GBF targets	
	2030 target no.	Goal indicator
IND1 Ecosystem Extent	1	A.2
IND1.1 Extent of priority ecosystems	1	A.1, A.2
IND2 Proportion of natural/semi-natural habitat	1	A.2
IND3 Site condition	1, 2, 3, 11	A.1, A.2, B.1
IND3.1 Condition of priority ecosystems	1, 2, 3, 11	A.1, A.2, B.1
IND4 Landscape condition	1, 2, 3, 11	A.1, B.1
IND5 Condition of semi-natural habitat	1, 11	A.2, B.1
IND6 Species Extinction Risk	4	A.3
IND7 Species Population Abundance	4	A.3

Key

2030 targets

Target 1: Biodiversity-inclusive planning

Target 2: Restore 30% of degraded ecosystems

Target 3: Conserve 30% of ecosystems

Target 4: Halt and reverse species loss

Target 11: Enhance contributions of nature to people

Headline indicators for goals

A.1: Red List of Ecosystems

A.2: Extent of natural ecosystems

A.3: Red List Index

B.1: Services provided by ecosystems