



GoNaturePositive!

Milestone 9

**Guiding principles and first
set of operational indicators
for measuring progress
towards the NPE**





Document Identification

Project Information

Project Acronym	GoNaturePositive!
Contract Number	101135264
Start Date	Jan 2024
Duration	48 months
Project Website	www.gonaturepositive.eu

Milestone Information

Milestone Number	9
Milestone Title	Guiding principles and first set of operational indicators for measuring progress towards the NPE
Work Package Number	1
Work Package Leader	Marianne Zandersen
Lead Author(s)	Francesca Magnolo, Jomme Desair
Contributing authors	Bosco Liso (WBA), Rachel Golden Kroner (WWF), Niak Koh (OXF), Dharm Kapletia (TCD), Jauza Hasna (INBO/KUL), Gauke Van Den Abeele (INBO/UGent), Naomi Adigbo (ICLEI), Linda Björk (WWF), Dara Maria Krolpfeifer (AU), Doan Nainggolan (AU), Xuelai Wang (WBA), Douwe De Vestele (Voedsel Anders), Esmeralda Borgo (Voedsel Anders), Federica Bosco (Etifor), Colm O'Driscoll (Etifor), Sander Jacobs (INBO), Daniela Rizzi (ICLEI), Marianne Zandersen (AU) and Siobhan McQuaid (TCD)
External review on final version	Thomas Ball (KPMG Ireland) Lucy Gaffney (Wild Plan / Horizon Nua)
Dissemination Level	Public



Revision History

Version	Date	Description of Change	Author
6	19/12/2025	Final editing and minor content changes after internal and external review.	Francesca Magnolo, Jomme Desair
5	24/11/2025	Updated methodology, guiding principles and further elaboration of headline indicators	Francesca Magnolo, Jomme Desair

Acknowledgements

The drafting of this Milestone report was a collaborative process that could count on the input of many experts along the way. We thank all the partners of the GoNP! Project for their continued engagement, insightful comments and amazing brainstorming capacity. An extra acknowledgement goes to all the pilot partners who we thank for giving their input on and testing multiple versions of the framework with continued enthusiasm and for grounding our theoretical work in reality. We would also like to thank our internal GoNP! reviewers Joseph Bull (OXF) and Daniela Rizzi (ICLEI) and our external reviewers Thomas Ball (KPMG) and Lucy Gaffney (Wild Plan/Horizon Nua). Throughout the process we were supported by great interns (Jauza Hasna, Gauke Van Den Abeele, Humaira Batool) who did a great effort to deliver under the fast-changing circumstances of this dynamic project. Lastly, we received much support, insightful comments and great suggestions, both from colleagues at INBO and externally at conferences, workshops and during our stakeholder event in Milan 2025. All of these have made this Milestone report a much richer and better foundation for the next steps in the project.



Table of contents

Acknowledgements.....	3
Table of contents	3
List of figures.....	4
List of tables.....	5
Executive Summary.....	5
Glossary.....	7
Project Summary and Objective of this Milestone.....	8
Objective of this document.....	9
Structure of this document	10
1.Introduction	11
2.Methodology and data collection	13
2.1 A framework for a whole-of-society approach.....	13
2.2 From the Concept Note to Guiding Principles	15
2.3 From Guiding Principles to Headline Indicators	16
2.4 Consultation process and testing the framework with GoNP! Pilot Sectors	17
Box 1: Application of the framework in related tasks: alignment of concepts.....	18
3. The NPE measurement framework	19
3.1. A brief tour of the measurement framework	20
3.2 The guiding principles for measuring progress towards the NPE.....	21
3.2.1 Outcomes of a NPE:.....	22
3.2.2 How do we get to a NPE	25
3.2.3 Procedural requirements (GoNP! Concept Note)	28
3.3 From guiding principles to headline indicators	30
4. Testing our framework in practice	41
4.1 Guiding principles and indicators from our pilots.....	41
4.1.1. Application of the framework from guiding principles to indicators: Agri-food example	41
4.1.2. Application of the framework from guiding principles to indicators – Tourism example	43
5. The GoNP framework as part of the landscape	44
5.1 Private actor engagement with measuring progress towards a Nature Positive Economy.....	44
Box 2: Science-based targets for Oceans.....	46



Box 3: Nature Positive Ocean Pathways.....	48
5.2 Public actor engagement with measuring progress towards a Nature Positive Economy	49
6. Next steps: Consultation on the GoNP measurement framework	50
Box 4: CDP-ICLEI Track: Unified Climate & Biodiversity Reporting for Local Governments.....	51
References.....	52
Appendix A – Overview of Sources	56
Appendix B – Translation process template, from guiding principles to headline indicators .	60
Step 1: From general guiding principles to pilot specific principles	61
What does [guiding principle] mean for my sector?	61
Step 2: From headline indicators to pilot specific indicators.....	63
Appendix C – Agri-food pilot application of the translation framework	66
Appendix D – Tourism pilot application of the translation framework.....	69

List of figures

<i>Figure 1: Actors and their interactions in shaping the Nature-Positive Economy. Source: GoNP!</i>	16
<i>Figure 2: GoNP! Measurement framework step-by-step: development from the GoNP! Concept Note and implementation in two-step-approach – here with example sectors based on the GoNP! Pilot sectors</i>	22
<i>Figure 3: Guiding principles to measure progress towards a Nature Positive Economy</i>	23
<i>Figure 4: A conceptual diagram of expanding classes and scales of actions, which businesses can implement along with other actors to create change at a societal scale. Source: GoNP!, based on Booth et al. (2024)</i>	25
<i>Figure 5 Mapping the main focus of relevant frameworks to ACT-D Source: Adapted from Business for Nature's "High-level Business Actions on Nature"</i>	48
<i>Figure 6: The next steps in testing and validating the guiding principles and indicators and incorporating them into an assessment methodology</i>	53

List of tables

<i>Table 1: NPE guiding principles and related headline indicators</i>	33
<i>Table 1b: Outcomes of NPE and how to get there - Column 4 only presents examples of potential formulations, but pilots are free to choose the formulation that best fits their vision in column 5 (Pilot translation)</i>	63
<i>Table 2: Full recovery of nature indicators, and metrics examples</i>	35
<i>Table 2b: Procedural requirements</i>	64
<i>Table 3: Prosperity for all, indicators and metrics examples</i>	37
<i>Table 3b: From pilot-specific principles to indicators - Pilots can tick one or more headline indicators from column 4 (Headline indicators' list). For each of the headline indicators selected they can specify how they are going to measure it in column 5 (metric)</i>	66
<i>Table 4: Respecting ecological limits, indicators and metrics examples</i>	38
<i>Table 5: Ensuring a social transformation, indicators and metrics examples</i>	39
<i>Table 6: Transform economic system for nature and equity, indicators and metrics examples</i>	42

Executive Summary

Reaching a future in which the economy achieves living in harmony with nature and operating within planetary boundaries, demands a fundamental reorientation of today's economic systems. This Milestone builds on the GoNaturePositive! (GoNP!) Concept Note by presenting the first integrated framework for assessing progress toward a Nature-Positive Economy (NPE), defined as *“an economy in which the net result of all economic activities combined leads to an absolute increase in nature, to the point of full recovery and prosperity for all of society”*.

The framework introduced in this document responds to a critical need: despite a rapidly growing interest in “nature positive,” existing measurement tools remain fragmented and often focus on single sectors, individual actors, or specific environmental dimensions. The GoNP! framework instead attempts to provide a unifying structure that connects ecological, social, and economic dimensions under a *strong sustainability* approach, which assumes that natural capital and ecological functions are non-substitutable and must be maintained as binding constraints on social and economic development. It also aligns with and builds upon established scientific and policy frameworks, including the Global Biodiversity Framework, IPBES assessments, planetary boundaries research, and the emerging landscape of nature-related disclosure and target-setting initiatives targeted at the private sector.

At the core of the framework is a **consolidated set of Guiding Principles describing what progress towards a NPE looks like, how transformation should occur, and the procedural conditions required to ensure a just, inclusive, and accountable transition**. The two outcomes of a NPE are the *Full recovery of nature*, which necessitates maintaining and restoring the integrity and resilience of all ecosystems to achieve a net-positive trend to the point of full recovery, and ensuring *Prosperity for all*, where economic gains increase equitably with nature, leaving no one behind. Achieving this demands a profound shift articulated in three transformative pillars: *Respecting ecological limits* by confining production and consumption within planetary boundaries; to *Transform economic systems for nature and equity* by tackling the root drivers of biodiversity loss across political, financial, and social systems; and *Ensuring a social foundation* by securing basic human rights and life essentials for all. These principles are strictly governed by Procedural requirements that mandate *Accountability*, *Recognize the role of every actor*, require *Measuring progress at all scales*, *Drive systemic change in sectors most responsible for biodiversity loss*, and *Acknowledge diverse values and worldviews*.

To operationalise these principles, the Milestone introduces a **first set of headline indicators** drawn from established sources such as Nature Positive Initiative (NPI) metrics, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' (IPBES) socio-economic indicators, the Doughnut Economy, and metrics aligned with planetary boundaries. These indicators provide an initial basis for consistent and meaningful measurement but are deliberately not actor-specific. Their purpose is to offer a starting point from which actors can build context-specific indicators and metrics.

A core contribution of this Milestone is a **structured translation process** enabling NPE actors - businesses, policymakers, financial institutions, civil society, and communities - **to adapt the**



Guiding Principles and identify indicators relevant to their own roles, impacts, and spheres of influence. This process is tested through pilots in two sectors (agri-food and tourism). These pilots confirm the framework's flexibility and highlight areas where data availability, indicator suitability, or methodological development must be strengthened.

The Milestone marks the beginning of a consultation and refinement process which will conclude with the publication of a final set of guiding principles and indicators in 2027. This will involve engagement with targeted stakeholders, iterative testing with pilot partners, alignment with major initiatives led by partner organisations such as the World Benchmarking Alliance and ICLEI, and the development of an evaluation and grading methodology to help actors understand where they stand and where transformative action is most needed. By the end of GoNaturePositive!, this process will result in a finalised framework and practical tools for implementation.

To support broad engagement in this consultation and refinement process, readers are encouraged to join the GoNaturePositive! community via the Engage page on the project website, where they can sign up for updates, participate in events and discussions, and access opportunities to connect with peers and experts on advancing a Nature-Positive Economy (<https://www.gonaturepositive.eu/engage>)..

Glossary

Nature Positive Economy	An economy in which the net result of all economic activities combined leads to an absolute increase in nature, to the point of full recovery and prosperity for all of society.
Indicators	Indicators are a summary measure that provides information on the state of, or change in, the system that is being measured (Fiksel et al., 2012)
Metrics	Metrics, in turn, are the measured value(s) used to assess specific indicators. It defines the units and how the indicator is being measured (Fiksel et al., 2012)
Guiding principles for measuring progress towards the NPE	The guiding principles translate the essential aspects of what is important to measure progress towards while moving to the NPE. These form a discrete number of principles.
Context-specific guiding principles	Guiding principles adapted to align with the conditions, needs, and characteristics of a particular context, sector, or setting, based on a reflection of their implications
Framework to measure progress towards the NPE	The framework introduced in this Milestone, comprises a set of guiding principles, which cover all the important aspects of the NPE that we need to measure progress towards and a set of actor-specific indicators, which show for each guiding principle how progress could be assessed by that specific actor.
Concept Note	Deliverable 1.1 of the GoNP! Project (GoNaturePositive! et al., 2025) titled <i>Concept Note: Framing the Nature-Positive Economy</i> . This deliverable lays the conceptual foundation and provides a definition of the Nature Positive Economy.
Work Package 1 (WP1)	First Work Package of GoNP!. It clarifies the Concept of NPE (T1.1), develops Criteria and Indicators and validates them with Pilots (T1.2), maps the Systemic Change Landscape (T1.3), compiles Market Evidence and Insights (T1.4), and engages Pilots to capture Systemic Change (T1.5).



Project Summary and Objective of this Milestone

The GoNP! consortium is coordinated by Trinity College Dublin (TCD) and involves 20 partners across 14 countries, represented by research institutions, non-profits and environmental organisations which are leading the nature-positive agenda at global and European levels. The project runs from 1st January 2024 to the 31st December 2027.

GoNP! proposes a whole-of-society approach for achieving a NPE through systemic change, with nature-based solutions (NbS) and nature-based enterprises (NbEs) at its core. While GoNP! will deliver a clear definition and conceptual framework for the NPE, it builds on and contributes to a rapidly evolving landscape in which many other initiatives - such as those led by the Science Based Targets Network (SBTN), the Taskforce on Nature-related Financial Disclosures (TNFD), the Nature Positive Initiative (NPI), the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and numerous sector-specific efforts - are simultaneously working to clarify what “nature positive” means in practice for different actors. This research takes into account valuable existing knowledge from business and expands this with inclusive perspectives from other stakeholder groups. GoNP! will also demonstrate how nature-positive practices can generate multiple benefits for people and planet on the ground.

Objective of this document

Key Message 5 of the Concept Note Framing the Nature-Positive Economy, states that it is essential to measure progress towards achieving the NPE (GoNaturePositive! et al., 2025). In this Milestone, we introduce a first version of a GoNP! framework to measure progress towards a NPE and an initial set of headline indicators that operationalise the framework. This Milestone is the start of an extensive consultation, testing and engagement track which will run for the rest of the project, in which we will test different ways in which to use this framework and iteratively update it based on the lessons learned. More information on the engagement and piloting process can be found in Section 6 (Next Steps).

The objective of this Milestone document is to start the conversation between the GoNP! Project, societal actors and other initiatives on what is important to measure progress towards and how to do it, grounded in the concept of the NPE as set out in the Concept Note, and science-based approaches to impact measurement. The framework will be used to develop an evaluation methodology (T2.4) to allow actors to evaluate where they stand in relation to the NPE and will be part of a toolbox developed within the project. This will involve defining clear steps for assessing progress, identifying priorities and understand where action is most needed according to the context and different actors.

To this end, we build firmly on the definition and framing of the NPE provided in the Concept Note (GoNaturePositive! et al., 2025) that takes a whole-of-society approach and integrates not only ecological, but also societal and economic dimensions, within a *strong sustainability* vision. Rather than introducing another standalone measurement framework, we present an integrative framework that can be used as a supporting tool for existing frameworks to position themselves within the NPE, clarifying which parts of nature, society and the economy they address, and to identify ways they could interact with other entities to help strengthen outcomes. Also, it can serve as a self-reflection tool for existing frameworks. For example: the SBTN framework already provides extensive guidance and metrics on ecosystem health, pressures, and corporate impacts. Our framework can support organisations applying SBTN



by helping them situate these indicators within a wider systems perspective, making it easier to spot where additional insights, such as socio-economic drivers or cross-sectoral interactions, could enrich their overall strategy. For instance, a food manufacturer applying the SBTN may already use detailed indicators on e.g. ecosystem condition, nutrient runoff, water use, and land-use change across its agricultural supply chain. The GoNP! framework can help the company reflect on how these SBTN-aligned metrics sit within the broader system within which it operates. It may highlight, for instance, how nutrient runoff is linked not only to environmental pressures but also to structural drivers such as agricultural subsidy regimes, and how ecosystem-condition indicators also relate to social and economic aspects such as farmer livelihoods.

We aim to create a framework that can be applied by a wide range of actors, across all sectors and at all relevant scales. Therefore, this Milestone report should not be viewed as the introduction of a rigid framework, but rather as the introduction of a tool that invites all actors to translate the NPE principles into their own context, using relevant existing metrics. This means that readers should not expect to find a set of guiding principles and indicators that they can immediately put into practice. Rather, readers will find a framework that will enable them to understand what the NPE means for them, identify headline indicators they aim to progress toward, and find inspiration for the specific metrics they can use to meaningfully measure progress.

Structure of this document

This document begins with an introduction outlining the project context and the objective of the Milestone (**Section 1**), followed by a description of the methodology used to translate the Concept Note into guiding principles and headline indicators (**Section 2**). It then presents the full GoNP! NPE measurement framework, detailing the guiding principles, their rationale, and the associated indicators (**Section 3**). The subsequent section illustrates how the framework has been tested in practice through pilot applications across sectors and at EU level (**Section 4**). The document then situates the GoNP! framework within the wider landscape of existing initiatives (**Section 5**) before concluding with the next steps in the consultation and refinement process (**Section 6**).

Who is this document for

This document is intended for any actor within society who seeks to understand what is important to measure when assessing progress toward a NPE. The guiding principles set out here apply to businesses, policymakers, financial institutions, standard-setting bodies, civil society organisations, researchers, and communities, describing the essential dimensions that must be addressed to ensure coherence with the concept of a NPE. As the framework aims to provide a shared reference point that can support alignment among many nature-positive measurement initiatives currently active in this field, the document is equally intended for practitioners working within these initiatives and standards. It provides the basis to identify complementarities or gaps, and to position their work in relation to others within a coherent, system-level measurement framework for the NPE.

1. Introduction

The global ambition to halt and reverse biodiversity loss by 2030 has been codified in the Kunming–Montreal Global Biodiversity Framework (GBF) and adopted under the UN Convention on Biological Diversity. Building on this, the Nature Positive Initiative has defined the Nature Positive goal as “*to halt and reverse nature loss by 2030 on a 2020 baseline, and achieve full recovery by 2050*” (Nature Positive Initiative, 2023). The use of the term “nature positive” has expanded rapidly and a great number of initiatives (SBTN, TNFD, NPI, WWF...) have started guiding business, finance, governments and civil society actors on how to navigate towards such an ambitious goal. This reality has spurred an increasing commitment by different actors in the economy to the nature-positive concept and has been at the basis of a wide range of biodiversity-related indicators and measurement frameworks for assessing progress towards nature positive.

As highlighted by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), one of the strategies for transformative change to reverse nature loss is transforming economic and financial systems for nature and equity (IPBES, 2025). Economic growth is closely linked to increases in production, consumption and resource use, which have largely detrimental effects on the natural environment and human health, and it is unlikely that a long-lasting, absolute decoupling of economic growth from environmental pressures and impacts can be achieved at the global scale (EEA, 2021). Dominant economic models have systematically treated environmental degradation as an externality and a cost that fall outside market prices, and the macroeconomics of growth and development have been built without the consideration of nature (Dasgupta, 2021). This has led to the persistent undervaluation of nature in economic decision-making, encouraging over-extraction, pollution, and the depletion of natural capital. This persistent perceived separation of the economy from nature has driven widespread ecological degradation and deepened social inequities, which is also leading to enormous costs and economic risks.

The GoNP! definition of a NPE proposes a fundamental change in perspective: a NPE is “*an economy in which the net result of all economic activities combined leads to an absolute increase in nature, to the point of full recovery and prosperity for all of society*”. Achieving this transformation requires changing the relationships between people, nature, and the economy so that the overall system becomes regenerative. The NPE is therefore grounded in the principle of strong sustainability, which recognises that ecological, social, and economic capital are not interchangeable (Goodland & Daly, 1996) and that economic and social systems can only thrive within the intrinsic limits of the biosphere (Skene, 2022). Moreover, the definition also makes clear that an economy that increases human prosperity or recovery of nature alone or even to the detriment of each other, cannot be regarded as a NPE.

GoNP! takes a whole-society approach, as called for by IPBES in the Transformative Change Assessment (TCA) (IPBES, 2025) meaning that every actor in the economy has a role to play to reach NPE goals: actors who have high impacts and dependencies on nature, such as businesses, including small and medium sized-enterprises and nature-based enterprises; actors who shape the economy, such as policymakers and governments, finance and

investors, standards bodies; and actors who encourage accountability, such as non-governmental organisations, researchers, education providers, citizens, and civil society groups. Nature is also an important actor itself (GoNaturePositive! et al., 2025), though in the context of setting up a measurement framework this is less relevant as there will always need to be someone to measure on behalf of nature.

The complexity of their interactions and the ambitious targets call for clear guidance on how different actors within the economy can align their decisions and actions with a nature-positive trajectory and collectively contribute towards a full recovery of nature. Therefore, a change in the perspective on what the economy should achieve cannot remain conceptual, but rather it must be operationalised and measurable.

To understand whether and how economic activities truly contribute to nature's recovery and prosperity for all, we need an integrated measurement framework that integrates ecological, social, and economic dimensions, enabling consistent tracking across sectors, scales, and actors and ensuring that trade-offs are minimized as much as possible between the different dimensions.

Therefore, the goal of this Milestone is to develop an integrated framework to assess the contribution of all actors in progressing towards the NPE and to operationalize this framework with a first set of indicators. The framework is built around guiding principles that every actor must consider when measuring their progress toward the NPE. However, the specific indicators used to operationalise each principle can be phased, prioritised, or adapted in proportion to an actor's influence, capacity, and context. The novelty of this type of framework lies in its integration of the whole-of-society approach: rather than proposing a sector- or actor-specific framework, it creates a structure that brings together existing nature-positive measurement initiatives under a framework intended for the entire economy. To this end, the framework builds firmly on the definition and framing of the NPE provided in the GoNP! Concept Note (GoNaturePositive! et al., 2025) and integrates not only ecological, but also societal and economic dimensions, within a strong sustainability vision, recognising that these forms of capital are interdependent and non-substitutable. This implies that the Guiding Principles established in this framework are non-optional and represent the essential dimensions that must be addressed by any actor, sector or initiative aiming claiming to contribute to or align with the NPE. While the translation of the principles can and should be adapted to specific contexts, the coverage of all principles is mandatory to ensure coherence and to address and minimize trade-offs and maximize synergies between ecological integrity, social wellbeing, and economic resilience.

Therefore, what is presented in this Milestone report should not be seen as a rigid checklist, but rather an instrument that enables each actor to interpret the guiding principles in their own context, defining what the NPE means for them, identifying how they contribute to each principle, and selecting relevant indicators, while ensuring that all dimensions of a NPE are consistently and comprehensively addressed. Similar to other principle-based initiatives (e.g. UNEP FI), by making these interpretations and choices explicit, the framework can also support transparency and comparability across actors, leveraging accountability over time. This kind of contextual translation and choice of relevant indicators linked to a specific aspect can be compared to a double materiality assessment steps or prioritizations in other frameworks. The examples provided (GRI, TNFD, SBTN, Doughnut Economy) are therefore

included to illustrate how users identify what is material for a specific actor or context, both for the actor themselves and the impacts it has on nature and society.

GRI uses materiality assessments with stakeholders to determine which topics are most relevant for a given organisation (Beske et al., 2019); TNFD applies materiality and location/sector scoping to disclosures; and SBTN requires companies to assess and prioritise impacts/dependencies before setting targets. Also, the Doughnut Economy framework applies a similar method as GoNP!: it defines a set of universal social and ecological boundaries, which are then translated into context-specific applications at the level of cities, regions, or sectors. In practice, this has been done through initiatives such as the *Doughnut City Portraits*, where the global Doughnut model is adapted to the local priorities, data, and governance structures of each city (Petterson, 2025). Likewise, in the GoNP! framework, translation ensures relevance and practicality, but all GoNP! Guiding Principles still need to be covered by actors seeking to adopt nature-positive commitments.

During the rest of the project, we will be piloting this framework in six different industry sectors, across scales from local to national and in eight different countries, seven in the EU and one in Colombia. The lessons learned from these different applications and a global engagement process with other actors are detailed in Section 5. Together this consultation and piloting, will lead to a final framework (in Deliverable 1.2) to be published in December 2026.

2. Methodology and data collection

The GoNP! Measurement framework consists of two main elements:

- 1) **Guiding principles:** These reflect important aspects that reflect multiple dimensions of the NPE. Together, they holistically reflect the overarching vision of the NPE, of which progress must be measured to ensure consistency with the NPE definition, and to avoid trade-offs between ecological, social, and economic dimensions.
- 2) **Headline indicators:** These represent specific measurable dimensions of each guiding principle that allow for the assessment of progress towards achieving that principle. They are intentionally broad and high-level, designed to be relevant across different actors and sectors. As a result, multiple metrics for the same indicator are possible and can be found in existing frameworks.

Together, these elements provide the structure for assessing how different actors and sectors at different scales contribute to a NPE and for identifying areas where actions and data are still lacking.

2.1 A framework for a whole-of-society approach

Since all actors' interactions shape the outcome of the economy, the whole-of-society approach, central to both the GoNP! Concept Note and the GBF, needs to be integrated. This was achieved through a mapping of the actors and their interactions to come to a joint understanding of how GoNP! represents a NPE and what the different roles for actors are of getting there. It allowed identifying linkages between socio-economic and environmental change, and how those linkages influence the achievement of NPE goals and therefore the guiding principles. Figure 1 portrays the result of such a systems thinking actor mapping



developed in the context of the NPE. This Figure is the result of five actor mapping exercises carried out in the context of the GoNP! pilots and doesn't aim to be an all-encompassing view on the economy. Rather, it serves as a visual tool for understanding NPE actors' roles, responsibilities, and interactions in respect to each other and to nature.

Building on this structure, one can distinguish in what ways different actors can contribute to progressing towards the nature-positive economy and the guiding principles, and therefore which indicators they can act upon or be held accountable by, either at micro or at macroeconomic level. These indicators reflect the degree of agency each actor has to influence and reshape the economic structures that currently hinder a transition to a nature-positive economy. NP actions and outcomes need to be implemented synergistically. Nonetheless, actors can and should of course contribute to the global NP goal and therefore the NPE. It is only by integrated and aligned actions that NP goals can be achieved. The concept note distinguishes between three large groups of actors with each their own responsibilities (for more details see GoNaturePositive! et al., 2025, section 4.2):

- Actors who have high impacts and dependencies on nature. These actors therefore need to address their most impactful activities on nature. Among this category are included businesses and sectors with significant land-, water-, and resource-use footprints (such as agriculture, forestry, fisheries, extractive industries, infrastructure, and manufacturing), as well as large asset owners and operators whose activities directly affect ecosystems.
- Actors who shape the economy. These should work on shaping the enabling environment so that those actors with high impact can support the NP transition. Among these are included public authorities at all levels (local, regional, national), regulators, standard setters, financial institutions, and other institutions that influence rules, incentives, investment flows, and market conditions. Their role is to create enabling environments, through policies, regulation, planning, procurement, and finance, that allow and incentivise high-impact actors to support the nature-positive transition.
- Actors who encourage accountability and should therefore make sure that the other two actor groups are upholding their responsibilities. In this category are included civil society organisations and local communities, research and academic institutions, and parts of the public sector responsible for oversight and enforcement.

These categories are not mutually exclusive, and in practice many actors operate across more than one role. For example, business actors may both exert high impacts and dependencies on nature and actively shape the economy by influencing policy, regulation, and market norms, creating feedback loops that are not fully represented in the schematic but are recognised as powerful drivers of change.

NP efforts not only need to scale across sectors, but they must also consider the economic, social, and political systems within which single actor grouping (and society at large) are embedded (Díaz et al., 2019; IUCN, 2023).

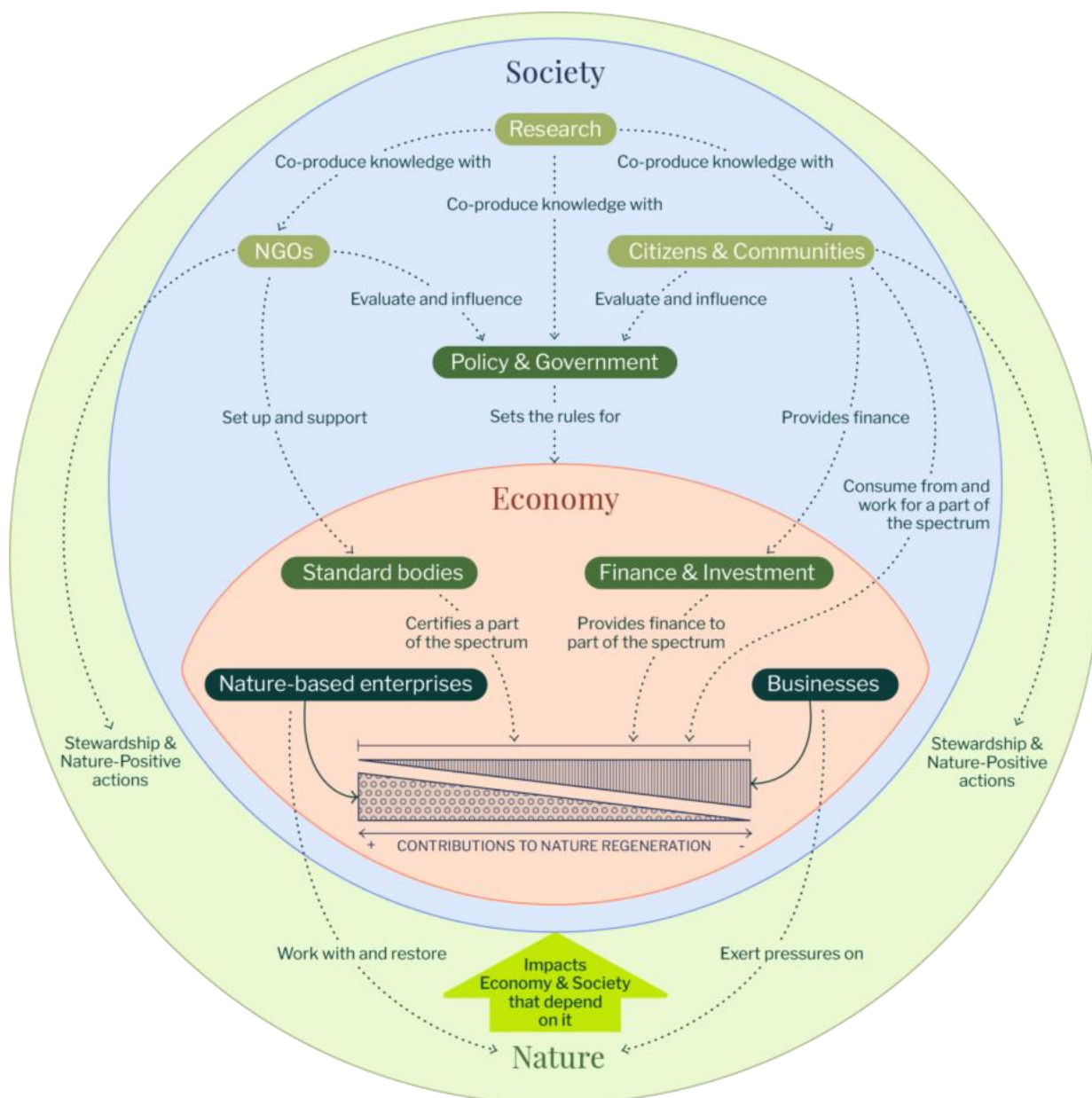


Figure 1: Actors and their interactions in shaping the Nature-Positive Economy (non-exhaustive). Source: GoNP!

2.2 From the Concept Note to Guiding Principles

The unpacking of the GoNP! Concept Note followed an iterative and collaborative process designed to translate its broad conceptual framing of the Nature-Positive Economy into a coherent set of guiding principles. This process was iterative because both the guiding principles, their formulation and interrelations and links to the GoNP! Concept Note, as well as headline indicators underwent 5 rounds of feedback and revision, internally within the consortium and externally with at selected events, workshops and through reviews by the GoNP! Impact Board. Collaboration occurred internally among task partners and Work Package partners, and was expanded to all project partners in the consortium, including

through dedicated feedback sessions during the in-person All Partner Meeting in Milan in May 2025 and multiple online consortium workshops in the summer of 2025.

The process began with a detailed analysis of the GonP! Concept Note to identify the fundamental building blocks, the ecological, social, and economic dimensions that underpin the NPE definition and the relationships among them. We distilled these building blocks into **i) key outcome areas** describing what a NPE should deliver, **ii) how to get there**, as pathways required to achieve these outcomes, and **iii) procedural requirements** necessary to ensure accountability, inclusiveness, and coherence across actors.

We then refined each of these components in their terminology, definition, and framing and aligned them with established science-based and policy frameworks, including the GBF, the NPI, IPBES assessments, and the Doughnut Economy. These frameworks were chosen because they form the scientific and policy foundation upon which the NPE concept and definition are built in the GoNP! Concept Note, and they together provide the logic connecting global ambitions to measurement.

2.3 From Guiding Principles to Headline Indicators

Building on this structure, each guiding principle was further translated into a set of headline indicators. These indicators represent the key dimensions that can be empirically measured to evaluate progress towards the guiding principles, providing a solid, yet flexible, basis for assessing how different actors, sectors, initiatives contribute to the NPE. This was supported by a targeted literature review, extracting over 400 indicators and metrics from literature that was foundational to the concept note (see Appendix A for an overview of sources). Criteria for selecting headline indicators are outlined below.

Headline indicators should:

- 1) Reflect critical aspects of the respective guiding principle;
- 2) be usable across a variety of use cases, by actors with different capacities and across diverse environmental and social contexts, while remaining adaptable to context-specific translation and implementation; and
- 3) connect to established systems from which indicators can be adapted or derived rather than creating entirely new indicators and related metrics.

The pillar frameworks used to derive headline indicators include:

- **NPI indicators** (Nature Positive Initiative, 2025): These were chosen for the *Full recovery of nature principle* because NPI has focused on addressing the gap in defining a small set of state-of-nature metrics, identifying indicators that can fit into existing frameworks and standards (TNFD, GRI, SBTN). Unlike well-established pressure and response metrics, these state indicators show whether the state of nature is improving over time. While they do not, on their own, attribute observed changes to specific actions or actors, they provide essential outcome-level information that helps track whether nature is moving in a positive or negative direction¹. They were also intentionally built to work across a wide range of

¹ Attributing outcomes to particular actors or activities would require complementary impact-evaluation approaches, as changes in the state of nature may result from multiple factors, including climatic variability, natural disturbances, disease, or actions by other actors operating in the same system. For this reason, the GoNP! and NPI indicators for measuring the state-of-nature should not be used as



contexts, capacities, and stakeholders, but are largely targeted to inform business-facing standards and frameworks.

- **Socio-economic indicators** from IPBES (2024): these were used in IPBES TCA (2024) (Chapter 3) to study the impact of transformative case studies, therefore they were considered a suitable and comprehensive list for evaluating how interventions from different NPE actors might affect people, livelihoods, and equity dimensions, covering. Such indicators spanned across different principles of the GoNP! framework, in some cases relevant to the *Transform economic systems for nature and equity*, in some cases to *Prosperity for all*, in other cases for *Ensuring social foundations*.
- **Beyond Growth indicators** (Walker & Jackson, 2019; *WISE Horizons*, 2025): these were chosen for the *Prosperity for all* principle, which focuses on forms of prosperity that go beyond GDP and incorporate well-being. While social-foundation indicators show whether the economy provides sufficient opportunities for everyone, this specific set captures how people actually experience their lives, through happiness, community connection, work satisfaction, relationship with nature, and overall life satisfaction. The Beyond Growth indicators therefore offered a strong basis for identifying measures that reflect such type of defined prosperity.
- **Doughnut Economy indicators** (Fanning & Raworth, 2025; Raworth, 2018): these were selected because the environmental indicator set for monitoring planetary-boundary overshoots at multiple scales has already been widely tested by various actors and institutions. The availability of global benchmark values also allows the impacts of individual actors or groups of actors to be contextualized relative to the broader system. The same applies to the *Ensuring a social foundation* indicators.

2.4 Consultation process and testing the framework with GoNP! Pilot Sectors

The development of the Guiding Principles and first set of Headline Indicators have been guided by an iterative consultation process that began in April 2025. This process brought together GoNP! consortium partners, pilot leaders and external experts to progressively refine the guiding principles and headline indicators, ensuring their scientific robustness and practical applicability.

In May 2025, a first public consultation of a first version of Guiding Principles was carried out at the *Business for Biodiversity Italy* annual event, followed by a consultation session with the Impact Board of the GoNP! project and a workshop with all consortium partners. The feedback provided considerations that were integrated in the refinement of the framework. These included:

- the importance of clearer definitions with cross references to GoNP! Deliverable 1.1;

standalone tools for assessing the effectiveness of individual actors' actions. In business and action-oriented contexts, pressure and response metrics, such as those used in TNFD disclosures or SBTN target setting, should always be used alongside state-of-nature indicators.



- the recognition of the challenge of addressing multiple actor types simultaneously, which highlighted the need for clearer guidance on contextual translation and application;
- ability of the framework to speak to different audiences who are at different levels of engagement with the NPE; and
- the need to be ambitious and open about uncomfortable truths. These uncomfortable truths acknowledge that all actors have differentiated responsibilities in tackling the root causes of biodiversity loss; recognise that the drivers of loss are embedded in current economic systems; that high-impact actors must address their impacts; that transformative change requires shifts in values and power, not just surface-level or technical fixes; and that achieving a NPE will involve confronting structural barriers.

These considerations informed further refinements of the framework and follow-up feedback sessions, including a dedicated workshop with the consortium to test different framings of the framework organised in July 2025, as well as internal consultation with GoNP! Work Package 1 task leads to **adapt the framework and ensure its accessibility and practical relevance, while preserving its transformative ambition.**

The outcome of this process was the development and acceptance of a first consolidated set of guiding principles and headline indicators, accompanied by a clear procedure for their application across different contexts. This framework is at the time of drafting this Milestone being tested, both in terms of its operationalisation through pilot implementations and in terms of feedback on the framework as a whole and its operating space through stakeholder consultations.

The engagement with GoNP! Project pilot partners reflects the need to ensure that the framework functions effectively both at the local and sectoral level, where actions are implemented, and at systemic level, where policies, monitoring, and aggregate progress are evaluated:

Pilot sector applications - each pilot was asked to apply a two-step procedure:

- 1) Translation of guiding principles: adapting the guiding principles to their specific sectoral context
- 2) Indicator development: choose relevant headline indicators among the list referred to each guiding principles and identify or design measurable indicators specific to their context



Box 1: Application of the framework in related tasks: alignment of concepts

The road mapping process, baseline assessment and identification of pathways to transformation, tested in tasks T2.3 (Gap Analysis: Establishing NPE Roadmaps) and T2.5 (Co-Creating and Demonstrating Roadmaps in Pilots), mirror the core logic of the measurement framework and provides the context for its operationalisation:

1. Visioning → Translation of Guiding principles and headline indicators

The *visioning exercise* corresponds to the translation step of the framework. Each sector and actors in the sector can interpret the guiding principles within their specific context to define a shared vision for *how* they contribute to the NPE. These visions express the desired outcomes (aligned with NPE principles) and can be applied to identify headline indicators and targets that represent success in that context.

2. Establishing the baseline and baseline assessment → Context-specific indicator application

The *baseline assessment* stage directly applies the indicators identified in the visioning exercise or translation of guiding principles and headline indicators. Stakeholders assess the current state of each indicator to establish a baseline from which progress toward the NPE vision (for each corresponding NPE principle) can be measured. This step operationalises the measurement dimension of the framework and supports monitoring over time.

3. Pathways to Transformation → Procedural requirements

The identification of *pathways to transformation* links to the procedural requirements of the framework. It identifies actions, governance arrangements, modalities of measurement and disclosure required to move from baseline to target.

The lessons from these pilot applications will inform the next phase of refinement, leading to the final framework (Deliverable 1.2: Guiding principles and operational indicators for measuring progress towards a NPE).

3. The NPE measurement framework

3.1. A brief tour of the measurement framework

Figure 2 illustrates how the GoNP! framework functions as a translation process between the conceptual framing of the NPE, its guiding principles and headline indicators, and its operational measurement across different contexts. The NPE Guiding Principles provide a shared foundation for what progress towards a NPE means.

All sectors and actors follow different paths in the NPE, depending on their roles, dependencies, and impacts on nature. The guiding principles are therefore designed to be interpreted and adapted to specific contexts - sectors, scales, and actor groups - before selecting appropriate indicators and metrics. This process consists of two main steps.

Step 1: Translating Guiding Principles to Context-Specific Principles

Each actor or sector interprets the NPE Guiding Principles in relation to their own operations and context. By “context,” we refer to the specific conditions that shape how an actor or sector engages with the NPE. This includes the type of ecosystem they are dependent on or have an impact on, the scale at which they operate, their regulatory environment, available data and resources, and the social, ecological, economic and geographic setting in which they function. This translation clarifies what each guiding principle means for their sector and identifies how progress towards it can be demonstrated. In the case of this Milestone, pilots that tested this process were pilots from agri-food and tourism sectors.

Step 2: Selecting Context-Specific Indicators

Once the guiding principles have been contextualised, actors can identify a relevant set of headline indicators among the ones listed under each guiding principle. Indicator selection is therefore only meaningful after the scale, sector, and actor context have been defined.

In this translation process, it is important to be aware of the already existing frameworks, their purpose, and state of the art indicators. Drawing on these frameworks does not aim to replicate their individual goals; rather, they are used as complementary tools that operate at the level of individual actors, whose combined contributions support progress toward the societal-level goal of a NPE.

A template for this translation process, as used by the pilots, is provided in Appendix B.

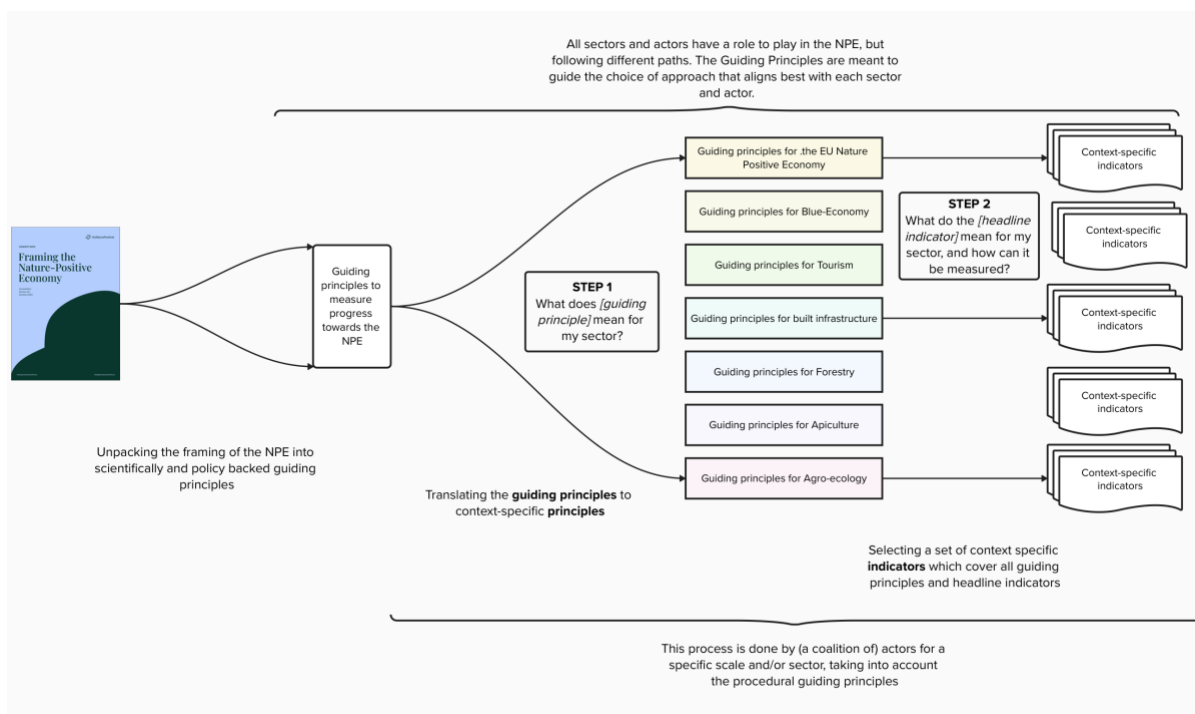


Figure 2: GoNP! Measurement framework step-by-step: development from the GoNP! Concept Note and implementation in two-step-approach – here with example sectors based on the GoNP! Pilot sectors.

3.2 The guiding principles for measuring progress towards the NPE

Following an extensive consultation process the following set of guiding principles was defined, structured in three complementary dimensions: outcomes of a NPE, how to get to a NPE, and procedural requirements. Together, they provide a coherent logic for understanding *what* the NPE actors aims to achieve, *how* these outcomes can be reached, and *under which conditions* this transformation can occur. Figure 3 below shows the overview of the guiding principles. In the following sections, we explain how such principles can be contextualised by whoever plans to apply the framework.

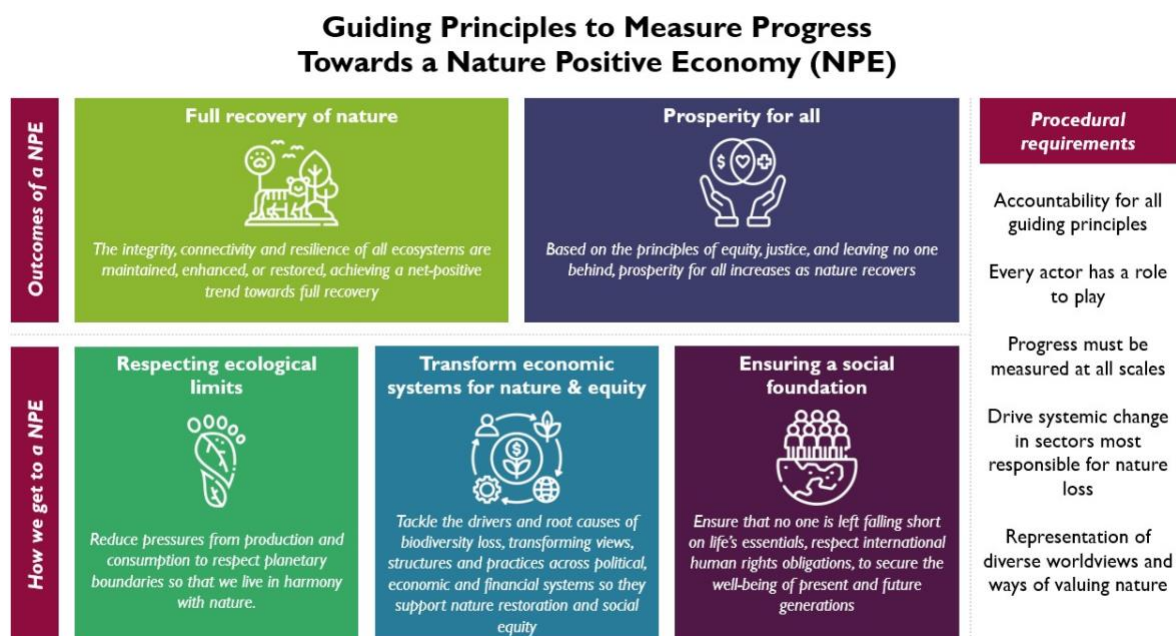
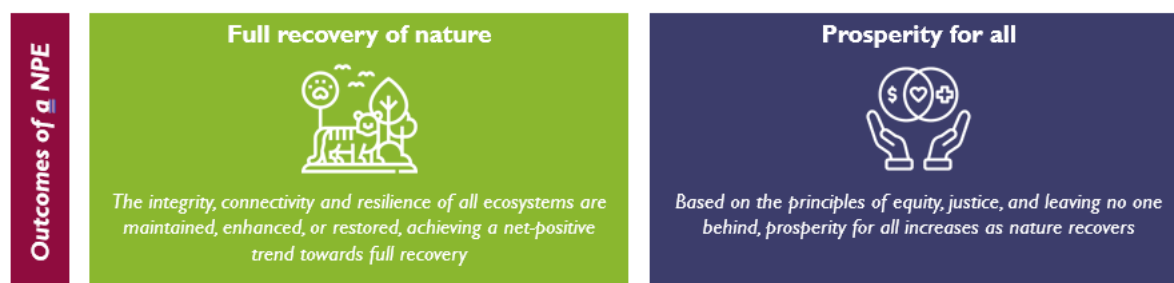


Figure 3: Guiding principles to measure progress towards a Nature Positive Economy

3.2.1 Outcomes of a NPE:



The outcomes - a net increase in nature to the point of full recovery - is at the core of the NPE definition “an economy in which the net result of all economic activities combined leads to an absolute increase in nature, to the point of full recovery and prosperity for all of society”, and therefore central to the measurement framework. In parallel, the NPE definition recognises that structure and outcomes of the economy play a decisive role in either enabling or undermining these outcomes. The net results of all economic activities combined must therefore contribute to prosperity for all in society, including social well-being and equity, and these must improve alongside nature’s recovery. Therefore, also prosperity for all is considered a key outcome of both the NPE and the measurement framework. **Progress toward a NPE must thus demonstrate contributions to both nature restoration and prosperity for all, including the equitable distribution of benefits and justice across society.**

- **Full recovery of nature:** *The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, achieving a net-positive trend towards full recovery (GoNaturePositive! et al., 2025; GBF Goal A);*

Actors applying the NPE framework are expected to translate this outcome into their specific context by identifying which **ecosystems, species, habitats, and landscapes** are most

relevant to their activities or goals for restoration. This includes considering both flora and fauna, and clarifying what integrity, connectivity, and resilience mean for these ecosystems in practical terms. Actors should reflect on which elements of nature are most material to them and the other actors who they share the landscape with, both in terms of their impacts on and dependencies upon these systems.

Importantly, this translation should be guided by a system perspective, recognising that every actor has a role to play (more information on how to do it within the framework is explained in section 3.2.3 *Procedural requirements*) and that individual actions influence - and are influenced by - other actors operating within the same ecological and socio-economic systems. To act transformative, actors should therefore reflect not only on which elements of nature are most material to their own impacts and dependencies, but also on how their sphere of influence intersects with that of others with whom they share landscapes and ecosystems (see Figure 4). Once these priorities are identified, actors can select targeted indicators that help track changes in ecosystem extent and condition over time, while acknowledging that progress toward full recovery depends on coordinated and complementary action across actors.

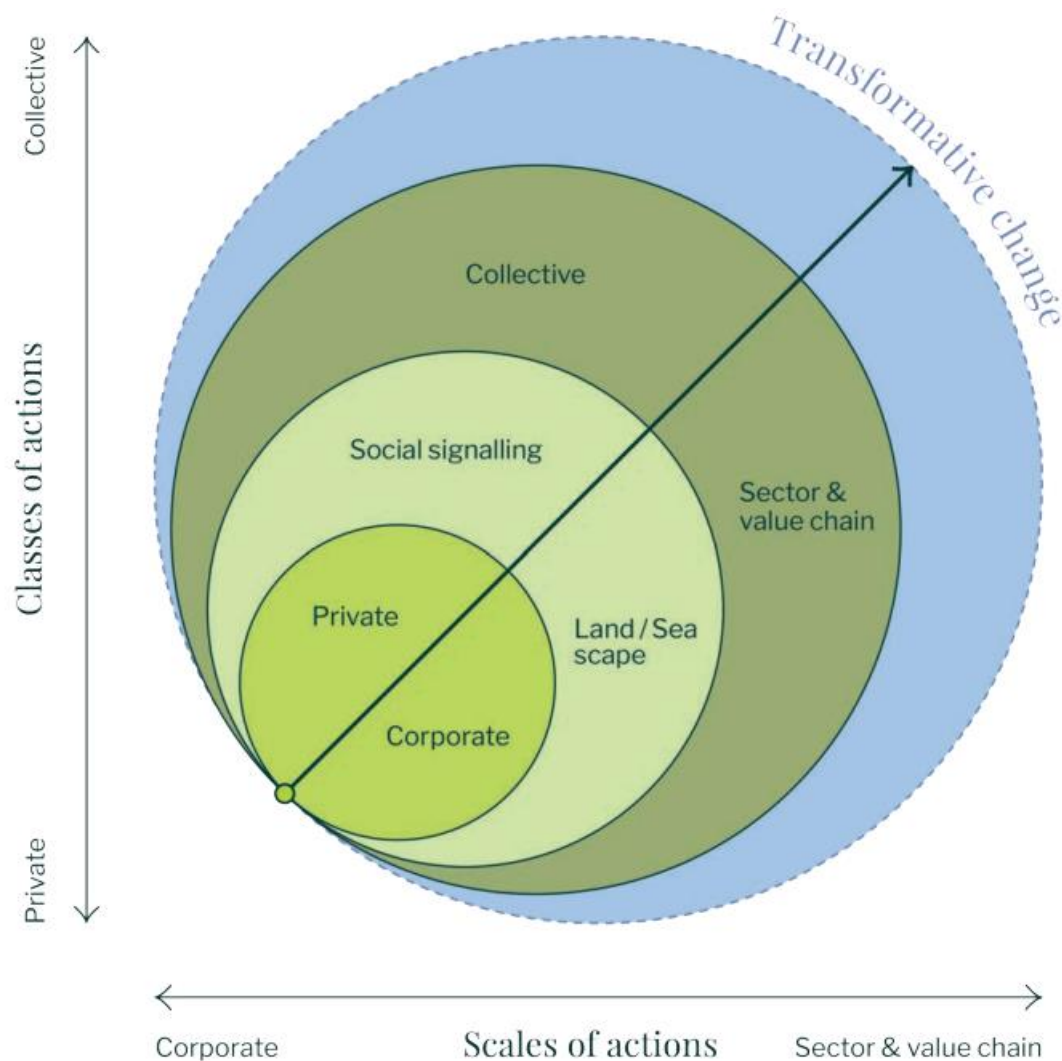


Figure 4: A conceptual diagram of expanding classes and scales of actions, which businesses can implement along with other actors to create change at a societal scale.
Source: GoNP!, based on Booth et al. (2024)

- **Prosperity for all:** *Prosperity for all increases with nature, equitably and justly, leaving no-one behind.* (GoNaturePositive! et al., 2025); IPBES (2024)
-); The European Green Deal, European Commission (2019).

To have a context-specific translation of such principle by NPE actors, a definition of prosperity needs to be provided. Such a definition is quite crucial, as it reflects visions and narratives of “societal progress”, as do the respective indicators linked to this concept. Conventionally, Gross Domestic Product (GDP) - defined as the monetary, market value of all final goods and services produced in a country over a given period, and commonly assessed through real GDP per capita - has been used as a “story telling” indicator to describe what progress and prosperity means for society (Walker & Jackson, 2019). Over time, GDP has been implicitly, and often explicitly, equated with social welfare or “standard of living,” despite the absence of any theoretical basis for using GDP as a measure of societal wellbeing (van de Bergh, 2009). As its creator warned, *“the welfare of a nation can scarcely be inferred from a measure of national income”* (Kuznets, 1934).

Extensive research has shown that such vision and narrative related to prosperity, relying in GDP alone to measure it, can be misleading and does not contribute to societal wellbeing (Helliwell et al., 2025) - especially “for all” - nor to ecological wellbeing (Zambrano-Monserrate et al., 2020), which are core aspects of the NPE (GoNaturePositive! et al., 2025). Moreover, GDP fails to account for the degradation or depletion of natural capital, thereby obscuring the economic drivers of biodiversity loss and ecosystem decline that directly undermine the goal of full recovery of nature.

This is supported by a broad range of evidence from international organisations (De Dominicis et al., 2024; OECD, 2020; UN, 2023), academic research (Costanza et al., 2009; Jansen et al., 2024; Kubiszewski et al., 2013, 2025), as well as the EU initiative to go beyond GDP by finding appropriate metrics (JRC). For example, a publication from Eurostat (2017) presented a detailed analysis of many different dimensions of quality of life, complementing the indicator traditionally, but wrongly, used as the measure of economic and social development, GDP. Here, different examples are shown throughout Europe that GDP does not always go hand in hand with other indicators that contribute to better quality of life. Therefore, on the translation of this principle NPE actors need to reflect not only on material, but also and especially unmaterial pleasures. Walker & Jackson (2019) define prosperity as *“transcending material concerns. It resides in the **quality of our lives** and in the **health and happiness** of our families. It is present in the **strength of our relationships and our trust in the community**. It is evidenced by our **satisfaction at work** and our **sense of shared meaning and purpose**. It hangs on our **potential to participate fully in the life of society**. Prosperity consists in our ability to flourish as human beings – within the ecological limits of a finite planet”*. Redefining prosperity in this way is not just a social aspiration, but a precondition for nature recovery.

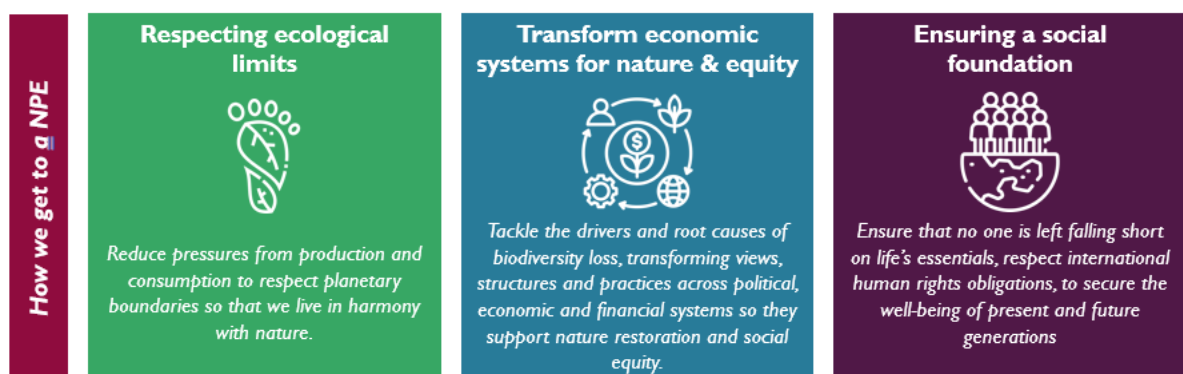
The pursuit of an economy with the goal of endless material growth drives overconsumption, resource depletion, and biodiversity loss (Marín-Beltrán et al., 2022). By contrast, a vision of prosperity grounded in wellbeing, equity, and ecological balance reorients economic activity away from extraction and toward regeneration and sufficiency (Hayden, 2024). Therefore, NPE actors need to reflect, within their specific sphere, on what quality of life, health,

happiness, satisfaction, meaning, and participation mean for the people and systems they influence, to be able to set proper measurements of progress. As examples: for a policy-maker, prosperity may mean a society where people live healthy lives in safe environments, affordable access to essential goods and services, with trust in institutions and equal access to opportunities; for a business leader, it may represent the long-term wellbeing of employees, customers, and communities, sustained by stable relationships and purposeful work; for a financial actor it may mean creation of value aligned with societal wellbeing and preservation and/or restoration of natural capital, stability and trust in the financial system; for citizens, it may mean belonging to caring communities, and having a sense of purpose and agency in shaping the future of their community; for local governments, it can be visible and measurable through concrete improvements to people's daily lives, such as ensuring that all residents have equitable access to parks, rivers, and restored natural areas; reducing heat stress through urban greening and tree-lined streets; lowering flood risk with wetlands and permeable surfaces; improving air quality and health through green corridors; strengthening community cohesion by creating shared public spaces designed through participatory processes.

Broadening the set of indicators used to define prosperity can also support fairer comparisons between the Global North and the Global South, by recognising multiple development pathways and valuing outcomes such as health, livelihoods, equity, ecosystem stewardship, and resilience, rather than focusing narrowly on aggregate economic output. At the same time, it is important to acknowledge persistent inequalities in enabling conditions, including limited access to data, finance, and technical capacity in many Global South contexts. These constraints affect how prosperity can be measured and acted upon and must be recognised to ensure that the “prosperity for all” principle is applied in an inclusive, credible, and context-sensitive way.

Finally, NPE outcomes cannot be achieved without ensuring economic security at multiple levels, from individuals and households (e.g. secure livelihoods, affordable access to essential goods and services, and protection from poverty), to communities and regions (e.g. stable local economies and employment), and to national economies (e.g. resilience to shocks and the capacity to invest in social and ecological priorities), the protection of basic human rights within each specific context, as well as respecting ecological limits. How these conditions can be upheld is addressed by NPE actors through the translation of the other principles of the framework, as explained below.

3.2.2 How do we get to a NPE



The GoNP! project aims to accelerate transformative action towards a NPE. The project's transformative ambition is grounded, amongst others, in the findings of the IPBES Transformative Change Assessment (IPBES, 2025), which provides the conceptual backbone for understanding what transformative change and action mean in this context. The assessment highlights that reversing biodiversity loss - the core outcome of the NPE and of the GoNP! Framework - requires a transformation of social, economic, political, and financial systems for nature and equity, addressing the drivers and root causes of biodiversity loss. These root causes stem from imbalanced power relations and disconnection from nature (IPBES, 2024).

According to the GoNP! Concept Note, progress towards the outcomes of the NPE - where nature and people thrive together - depends on the measurable operationalisation of three interlinked actions:

1. **Reducing negative impacts on nature and addressing the drivers of degradation** (based on IPBES, 2019: drivers of biodiversity loss include changes in land and sea use, direct exploitation of organisms, climate change, pollution, and invasive alien species);
2. **Increasing positive actions for nature** (actions that contribute to positive outcomes for nature at different scales, including restorative and regenerative actions, from individual to societal)
3. **Enacting transformative change addressing the root causes of biodiversity loss** (changes in views, structures, and practices that address the disconnection of people from nature and domination over nature and other people; the inequitable concentration of power and wealth; and the prioritisation of short-term individual and material gains).

Building on insights from IPBES (2024) and the Doughnut Economy (Raworth, 2018), the pathways toward a NPE focus on transforming current systems so that economic activities operate within ecological boundaries while ensuring that basic human needs and rights are fulfilled (GoNaturePositive! et al., 2025). This is the basis of how nature can be fully restored and people prosper. This involves reducing the drivers of nature degradation, increasing actions that regenerate ecosystems, and restructuring economic and social systems to promote fairness, inclusiveness, and long-term resilience. **Therefore, in this framing, progress toward the NPE depends on measurable advances in how pressures on nature are reduced, how regenerative actions are scaled up, how people's basic needs are met, and how economic and governance structures transform to enable this.**



Respecting ecological limits: *Reduce pressures from production and consumption to respect planetary boundaries so that we live in harmony with nature.* (Fanning & Raworth, 2025; GoNaturePositive! et al., 2025; IPBES, 2022)

The IPBES assessments identify the direct pressures (direct drivers) on nature that drive biodiversity loss, such as land- and sea-use change, overexploitation of resources, pollution, climate change, and invasive species. These pressures represent the proximate causes of ecological degradation. The planetary boundaries framework (Richardson et al., 2023; Rockström et al., 2009; Steffen et al., 2015) complements this perspective by defining the global ecological limits within which humanity can operate safely, including critical thresholds for climate stability, biosphere integrity, freshwater use, nutrient cycles, land-system change, and more (specified in the headline indicators). Together, IPBES pressures and planetary boundaries frameworks provide a biophysical foundation for defining and respecting ecological limits. IPBES describes *what* human activities do (pressures) while planetary boundaries describe *how far those pressures can go* before crossing thresholds that destabilise Earth systems. Therefore, when translating this principle, actors in the NPE must identify which **pressures their activities exert or influence, and how these relate to the planetary boundaries or ecological thresholds most relevant to their context.**



Transform economic systems for nature and equity: *Tackle the drivers and root causes of biodiversity loss, transforming views, structures and practices across political, economic, financial and social systems so they support nature restoration and social equity.* (GoNaturePositive! et al., 2025; IPBES, 2025)

The IPBES TCA (IPBES, 2024) highlights that reversing biodiversity loss requires addressing indirect drivers and underlying causes of biodiversity loss. The proximate pressures identified by IPBES (direct drivers, e.g. pollution, land-use change, overexploitation) stem from these deeper structural drivers which include demographic and sociocultural factors, economic and technological systems, institutional and governance arrangements, and broader social dynamics such as conflict and health crises. These indirect drivers are rooted in the prevailing values and behaviours that underpin our current economic model, particularly the disconnection from and domination over nature and people, concentration of power and wealth, and prioritisation of short-term, individual, and material gains. It is by acting on such structural level that transformation can be achieved.

However, **translating this principle into context-specific practice represents one of the most challenging yet essential aspects of the framework.** It is here that the framework's transformative ambition is tested, ensuring that its robustness and effectiveness in **addressing not only symptoms but also deeper systemic causes of nature loss.** For this reason, within the framework, this guiding principle requires extensive feedback and testing to understand how it can be effectively used by NPE actors, how it can be translated into different contexts, and which actions and indicators can best capture and track progress.

To support the translation of this principle into practice, the following points are proposed for NPE actors that can work individually but also collectively towards this. These are grounded in insights from the Nature⁴Squared & SUSTAIN (2024) framework which emphasize that Nature Positive ambitions require policies, their incentives, and governance arrangements to be reformed across all levels, and that businesses and financial actors must examine and transform their own internal logics and structures. This can be argued to also hold for all other actors such as policy and NGOs, and especially those who currently hold the most power.

- Identify which economic, institutional, or governance structures currently drive nature loss, inequality, or short-term exploitation within their sphere of influence. This reflection includes examining **existing incentive systems, market logics, ownership models, and decision-making hierarchies and other structures** that may perpetuate unsustainable practices or marginalise certain groups.
- As the financial sector is a key enabler of transformative change, determine which **levers of change - such as fiscal incentives, procurement rules, financial instruments, partnerships, or cooperative ownership models - can be mobilised** to realign these structures toward regenerative and equitable outcomes.
- Finally, they should consider how decisions and **governance arrangements** can redistribute power, agency, and benefits more fairly across actors, sectors, and communities.



Ensuring a social foundation: *Ensure that no one is left falling short on life's essentials, respect international human rights obligations, to secure the well-being of present and future generations* (Raworth, 2018; GoNaturePositive).

Protection of basic human rights is at the foundation of a NPE. The Doughnut Economy framework identifies a set of dimensions that constitute this “social floor,” including access to food, water, health, education, housing, energy, income, gender equality, voice, and political representation. Social foundations have been tested and adapted in multiple contexts and regions, supported by the Doughnut Economics Action Lab², offering a valuable starting point for NPE actors seeking to interpret what “ensuring a social foundation” means in their setting (Pettersson, 2025). In translating this principle, **NPE actors should identify which basic needs, rights, and social conditions are most relevant to their context, keeping in mind that this principle is not limited to the social domain but also extends to the economic dimension of wellbeing.**

² <https://doughnuteconomics.org/>

3.2.3 Procedural requirements (GoNP! Concept Note)

Procedural requirements

Accountability for all guiding principles

Every actor has a role to play

Progress must be measured at all scales

Drive systemic change in sectors most responsible for nature loss

Representation of diverse worldviews and ways of valuing nature

The NPE is based on the needs for a whole-of-society transformation where progress depends on the participation of all actors, each interacting in their capacity and sphere of influence. Therefore, progress needs to be measured at all scales. All actors applying the framework need to be able to explain how their decisions address each guiding principle, ensuring that no dimension is neglected or traded off.

• **Accountability on all guiding principles:** by contextualising this principle, NPE actors explain how they will stay accountable and monitor their progress on the indicators linked to each guiding principle. It is understood that some principles may be harder to apply in practice than others, and that tracking progress may be difficult because of limited data, or lack of experience in measuring these aspects.

Applicants of the framework might describe which guiding principles are more difficult to apply and monitor, explain why this is the case, and outline how they plan to address these challenges. This could include steps to improve data collection, develop suitable indicators, or build knowledge and experience over time. The goal is to make sure that accountability covers not only areas that are already well known and easy to measure, but also those that are new or less familiar, helping to create a more balanced and complete picture of progress. For more detailed information about accountability mechanisms in a NPE (see GoNP!, 2025, Box 6).

- **Every actor has a role to play:** the whole-of-society approach is one of the core pillars of both the NPE and this framework. In practice, this means that no single actor, whether a business, policymaker, financial institution, or civil society organisation, can achieve a NPE alone, but rather that all must contribute. Each actor must recognise their specific role and responsibility in driving transformation within their sphere of influence, while also identifying how other actors, institutions, or policies affect their ability to deliver nature-positive outcomes, either by enabling or hindering their transformation. Translating this principle therefore requires NPE actors to clarify which boundary conditions or external factors constrain or support their progress, which actors hold influence over these conditions (such as regulators, suppliers, investors, or local authorities), and how they plan to engage or collaborate with these actors to overcome bottlenecks, align incentives, and strengthen collective impact. This includes adopting co-creation and participatory governance approaches, and where possible living-lab practices, which are core to the success of NbS and help ensure accountability, recognition of multiple values of nature, and inclusive decision-making processes.
- **Progress is measured at all scales:** translating this principle means clarifying the scale at which the NPE actor is going to operate and implement changes. Where and at which level (institutional, local, regional, national etc.)? Also, NPE actors can clarify

which are going to be short-, medium-, and long-term efforts of transformation among the one outlined in the rest of the principles.

- **Drive systemic change in sectors most responsible for biodiversity loss:** these include sectors that exert significant pressures on ecosystems, such as those related to commodities identified under the EU Deforestation Regulation (EUDR) (European Parliament, 2023) and by the Science Based Targets Network (SBTN) (SBTN, 2025) as high-impact. Actors involved in these sectors or commodities, whether directly or indirectly through their operations, investments, or supply chains, should disclose their strategy for taking responsibility and demonstrating how they intend to transition away from high-impact commodities, business models, or initiatives. In GoNP! the pilot sectors involved in the project were selected based on this principle. This also aligns with the strategies for transformative change of IPBES (2024).
- **Represent diverse worldviews and multiple values of nature:** Representing diverse worldviews and multiple values of nature is essential to ensure that the transition to a Nature-Positive Economy reflects the plurality of ways in which people understand, relate to, and depend on nature. As emphasised by the IPBES Values Assessment (IPBES, 2022), most decisions about nature currently rely on a limited set of market-based or instrumental values, while overlooking cultural, relational, and intrinsic values that are equally important for sustaining both nature and human wellbeing.

In applying this principle, NPE actors should seek to recognise, include, and balance multiple value perspectives when defining objectives, assessing trade-offs, and measuring progress. This involves engaging with a diverse range of stakeholders and knowledge systems - including local communities, Indigenous Peoples, practitioners, and scientists - and incorporating their perspectives equitably on what matters for nature and society. The IPBES Values Assessment (IPBES, 2022) provides a practical reference for doing so, offering typologies of nature's values, participatory valuation methods, and approaches to integrate these into decision-making processes. This principle also aligns with the strategy for transformative change to "shift societal views and values to recognize and prioritize human-nature interconnectedness" (IPBES, 2025)

3.3 From guiding principles to headline indicators

In Table 1 all the headline indicators related to each guiding principle are listed. More detailed information about the indicators for each principle and the reasoning behind their choice is provided in the text below.

Table 1: NPE guiding principles and related headline indicators

Guiding principle	Headline indicators	Reference
Full recovery of nature	Extent of nature	(Nature Positive Initiative, 2025) ³
	Condition of nature	(Nature Positive Initiative, 2025)

³ NPI's indicator list is also under development at the time this Milestone is being written. Their formulation or content might change in the next months.



<i>The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, achieving a net-positive trend towards full recovery</i>		
Prosperity for all <i>Prosperity for all increases with nature, equitably and justly, leaving no-one behind</i>	Physical and mental health (psychological wellbeing)	(Jackson, 2009; Walker & Jackson, 2019)
	Trust, security and sense of community	(Jackson, 2009; Walker & Jackson, 2019; Woodhouse et al., 2015)
	Meaningful relationships	(Jackson, 2009; Walker & Jackson, 2019; Woodhouse et al., 2015)
	Meaningful employment	(Jackson, 2009; Walker & Jackson, 2019)
	Ability to participate to the life of society	(Jackson, 2009; Walker & Jackson, 2019; Woodhouse et al., 2015)
	Good quality of life	IPBES (2024)
	Equity	IPBES (2024)
Respecting ecological limits <i>Reduce pressures from production and consumption to respect planetary boundaries so that we live in harmony with nature</i>	Ocean acidification	(Fanning & Raworth, 2025)
	Chemical pollution	(Fanning & Raworth, 2025)
	Nutrient pollution	(Fanning & Raworth, 2025)
	Air pollution	(Fanning & Raworth, 2025)
	Freshwater disruption	(Fanning & Raworth, 2025)
	Land, aquatic and marine ecosystems conversion	adapted from Fanning & Raworth (2025)
	Climate change	(Fanning & Raworth, 2025)
Transform economic systems for nature and equity <i>Tackle the drivers and root causes of biodiversity loss, transforming views, structures and practices across political, economic, financial and social systems so they support nature restoration and social equity.</i>	Ozone-layer depletion	(Fanning & Raworth, 2025)
	Resilience of production systems	IPBES (2024)
	Institutional strength	IPBES (2024)
	Inclusion of Indigenous peoples and local communities	IPBES (2024)
	Power equity	IPBES (2024)
	Fair wealth distribution	IPBES (2024)
	Poverty reduction	IPBES (2024)
	Food security and sovereignty	IPBES (2024)
	Recognition of rights and values	IPBES (2024)
	Access to land/sea	IPBES (2024)
	Enjoyment of natural beauty	IPBES (2024)
	Type of ownership of businesses	From GoNP! internal expert partners consultation
	Subsidies for nature positive economic activities vs. nature negative economic activities	From GoNP! internal expert partners consultation

	Investment in nature positive economic activities vs. nature negative economic activities	From GoNP! internal expert partners consultation
	By sector most responsible for biodiversity loss: Share of Gross Value Added from nature positive economic activities vs nature negative economic activities	From GoNP! internal expert partners consultation
	Decent work in Nature-based Enterprises (NbEs) or other nature-positive economic activities	From GoNP! internal expert partners consultation
	Extent to which consumption and production systems shift toward lower-impact materials, reduced resource throughput, and decreased dependence on imported high-impact goods	From GoNP! internal expert partners consultation
Ensuring a social foundation <i>Ensure that no one is left falling short on life's essentials, respect international human rights obligations, to secure the well-being of present and future generations</i>	Access to food and nutrition	adapted from Fanning & Raworth (2025)
	Access to health	adapted from Fanning & Raworth (2025)
	Access to knowledge and quality of education	adapted from Fanning & Raworth (2025)
	Provision of decent work and employment	adapted from Fanning & Raworth (2025)
	Water security	adapted from Fanning & Raworth (2025)
	Access to reliable energy	adapted from Fanning & Raworth (2025)
	Access to transport and digital connectivity	adapted from Fanning & Raworth (2025)
	Access to adequate housing and shelter	adapted from Fanning & Raworth (2025)
	Gender, racial and social equality	adapted from Fanning & Raworth (2025)
	Reduction of discrimination	IPBES (2024)
	Social cohesion and trust	adapted from Fanning & Raworth (2025)
	Political freedom and civil rights	adapted from Fanning & Raworth (2025)
	Peace and justice	adapted from Fanning & Raworth (2025)
	Freedom to exercise spirituality	IPBES (2024)

- **Full recovery of nature** indicators:

The headline indicators listed in the table correspond to the NPI state of nature indicators. In their development, similar alignment criteria were applied as in our framework, emphasising

flexibility, responsiveness, and the design of a minimum set of universal state-of-nature metrics suitable for broad adoption. These indicators are still in the testing phase and will be refined to ensure they can be embedded within existing frameworks and standards (foreseen by NPI in 2027), facilitating rapid integration and widespread use across sectors. The existing frameworks and standards that are testing the applicability of these indicators are: **TNFD, GRI, SBTN, WBCSD's Nature Metrics Portal** (see Nature Positive Initiative, 2025).

In particular, NPI further specifies for the extent and condition of nature indicators (for more info visit NPI's website. Since these indicators are also in a phase of testing, the reading should be mindful of the fact that the examples reported below might be changed once NPI will publish the official final ones):

Table 2: Full recovery of nature indicators, and metrics examples

Guiding principle	Headline indicators	Metrics examples (or where to find them)
Full recovery of nature <i>The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, achieving a net-positive trend towards full recovery</i>	Extent of nature Extent of priority ecosystem	Area of loss, gain and net change in extent (ha)
	Proportion of natural or semi-natural habitat	Area of loss, gain and net change in average proportion of natural and semi-natural habitats within each km2 (%)
	Species extinction risk	Species extinction risk score and trend
	Species population abundance	Change in the number and proportion of priority species with: 1) stable or increasing populations, and 2) declining populations
	Condition of nature Site condition	Area and change since baseline by condition class (ha per condition class) Value and change since baseline by condition class (ha per condition class)
	Condition of priority ecosystems	Values and change in a) landscape intactness, b) structural connectivity, and c) functional connectivity
	Landscape condition	Area and change since baseline of natural and seminatural habitat by condition class (ha per condition class)
	Condition of semi-natural habitat	

- **Prosperity for all** indicators:

The indicators selected for the NPE outcome of prosperity for all builds on the beyond GDP definition of prosperity, as explained in Section 3.2. In this framing, prosperity goes beyond material wealth and economic growth, encompassing wellbeing, social cohesion, and

equitable participation in society. The headline indicators for this outcome are aligned with existing global frameworks to ensure consistency and facilitate the selection of corresponding metrics. These include the Sustainable Development Goals (SDGs) (UN, 2025), widely used at national and regional levels to track progress toward wellbeing and equity, the Gross Happiness Index (GHI) (UN High Level Political Forum, 2018), a composite index from which multiple metrics related to health, income, and quality of life can be derived (UNDP, 2024), and the Quality of Employment framework (UNECE, 2015). Both SDGs, GHI and UNECE metrics have been tested and applied across diverse contexts. It is important to note that the list of metrics and frameworks provided is illustrative rather than exhaustive and can be complemented by additional metrics that are more relevant to specific contexts, sectors, or actors. While each NPE actor applying the framework may prioritise the most pertinent headline indicators from the list, the methods of measurement and choice of metrics from existing framework can vary according to their operational realities, data availability, and monitoring capacities. Accordingly, metrics should be adapted and developed to reflect the actor's context while maintaining consistency with the overarching headline indicator and relative guiding principle.

Table 3: Prosperity for all, indicators and metrics examples

Guiding principle	Headline indicators	Metrics examples (or where to find them)
Prosperity for all <i>Prosperity for all increases with nature, equitably and justly, leaving no-one behind</i>	Physical and mental health (psychological wellbeing) Emotional balance	SDG goal 3 indicators - SDG 3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease. - SDG 3.4.2 Suicide mortality rate - SDG 3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders - SDG 3.5.2 Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol.
	Spirituality	GHI measurement of spirituality (qualitative metric)
	Trust, security and sense of community	

	Community vitality	GHI measurement of spirituality (qualitative metric)
	Meaningful relationships	
	Social relatedness	GHI measurement of spirituality (qualitative metric)
	Leisure and social interactions	Eurostat – Quality of life indicators: e.g. satisfaction with the amount of leisure time
	Meaningful employment	Quality of employment framework (UNECE)
	Ability to participate to the life of society	Eurostat – Quality of life indicators e.g. participation in formal volunteering activities
	Good quality of life	Eurostat – Quality of life indicators e.g. life satisfaction
	Overall experience of life	
	Equity	Eurostat – Quality of life indicators e.g. Share of the population unable to face unexpected financial expenses

- **Respecting ecological limits** indicators:

The Doughnut economy framework (Raworth, 2018) provides already a list of indicators that helps assessing whether human activities remain within planetary boundaries, defining the safe ecological space within which economies can operate. These indicators capture key environmental pressures. In the context of the NPE framework, **biodiversity, which is treated as one of the planetary boundaries in the Doughnut model, becomes the core outcome**, assessed through indicators of the extent and condition of nature (therefore, **biodiversity indicators will not be found under this guiding principle**). In this way, **the NPE framework operationalises the ecological ceiling concept by linking the measurement of environmental pressures to the ultimate goal of full nature recovery**.

Each NPE actor should therefore identify and select metrics that demonstrate how their activities contribute to keeping the relevant planetary boundaries within safe limits. These boundaries are globally defined and scientifically calculated, providing a consistent reference point across sectors and regions. The calculation of these limits is done using the metrics reported in the table, all from the latest monitoring (Fanning & Raworth 2025). While the Doughnut framework offers these global thresholds, several sector- and actor-specific frameworks, for businesses, financial institutions, policymakers, and others, provide established metrics and methodologies for tracking environmental pressures and setting reduction targets.

Table 4: Respecting ecological limits, indicators and metrics examples

Guiding principle	Headline indicators	Metrics examples (or where to find them)
Respecting ecological limits	Ocean acidification	Average saturation state of aragonite at the ocean surface (at least 80% of pre-industrial saturation state of 3.44 Ω_{arag})



<i>Reduce pressures from production and consumption to respect planetary boundaries so that we live in harmony with nature</i>	Chemical pollution	Production of hazardous chemicals, millions of tonnes per year (at most 5% of the 1,200 Mt of total chemicals produced in year 2000)
	Nutrient pollution	- Production of hazardous chemicals, millions of tonnes per year (at most 5% of the 1,200 Mt of total chemicals produced in year 2000) - Nitrogen applied to land as fertilizer, millions of tonnes per year (at most 62 Mt per year)
	Air pollution	Asymmetry between Earth's hemispheres of sunlight reaching the surface, owing to differences in atmospheric particle concentration (at most 0.1 inter-hemispheric difference in Aerosol Optical Depth)
	Freshwater disruption	- Proportion of land area with human-induced disturbance of blue-water flow deviating from Holocene variability (at most 10.2%) - Proportion of land area with root-zone soil moisture deviating from Holocene variability (at most 11.1%)
	Land, aquatic and marine ecosystems conversion	- Area of forested land as a proportion of forest-covered land before human alteration (at least 75% of 64 million square kilometres) - Rate of species extinctions per million species years (at most 10 E/MSY)
	Climate change	- Atmospheric carbon dioxide concentration, parts per million (at most 350 ppm CO₂) - Human-induced radiative forcing at the top of the atmosphere, Watt per square metre (at most 1 W m⁻²)
	Ozone-layer depletion	Concentration of ozone in the stratosphere, Dobson units (at most 5% decrease with respect to 1964–1980 value of 290 DU)

- **Ensuring a social foundation** indicators:

The Doughnut economy framework also provides a list of indicators that help assessing whether people's basic social needs and rights are being met. Each NPE actor should therefore identify and select metrics that demonstrate how their activities contribute to ensuring one or more of these needs through their practices through appropriate metrics. For example, a business might track whether its employees receive fair wages and safe working conditions; a policymaker might monitor access to affordable housing or healthcare within their jurisdiction; and a financial institution might assess whether its investments support inclusive services, decent employment, or community wellbeing. As for ecological limits, the calculation of social foundations at global (NPE) level is done using the metrics reported in the table, all from the latest monitoring (Fanning & Raworth 2025). While the Doughnut framework offers these global thresholds, **other sector- and actor-specific frameworks, for businesses, financial institutions, policymakers, and others, can be used to extract established and appropriate actor-specific metrics.**

Table 5: Ensuring a social transformation, indicators and metrics examples

Guiding principle	Headline indicators	Metrics example (or where to find them)
Ensuring a social foundation <i>Ensure that no one is left falling short on life's essentials, respect international human rights obligations, to secure the well-being of present and future generations</i>	Access to food and nutrition	Population undernourished
	Access to health	- Population living in countries with under-5 mortality rate exceeding 25 per 1,000 live births - Population living in countries without high coverage of essential health services (Universal Health Coverage Index score less than 60 out of 100)
	Access to knowledge and quality of education	- Young adult population (aged 21–23 years) with incomplete upper secondary education - Adult population (aged 15+ years) who are illiterate
	Provision of decent work and employment	- Population living below the societal poverty line, set at half their country's median household income or at least \$15 a day - Population of young people (aged 15–24 years) not in employment, education or training
	Water security	- Population lacking access to safely managed drinking water - Population lacking access to safely managed sanitation



	Access to reliable energy	- Population lacking access to electricity - Population lacking access to clean fuels and technologies for cooking, heating and lighting
	Access to transport and digital connectivity	- Urban population lacking convenient access to public transport - Population not accessing the internet
	Access to adequate housing and shelter	- Urban population living in slums or informal settlements
	Gender and social equality	- Population-weighted score on the Gender Inequality Index (global gap between women and men in terms of reproductive health, empowerment and employment) - Racial inequality (no global indicator tracks racial and ethnic equality gaps in social outcomes at present)
	Reduction of discrimination	- Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law (SDG 10.3.1)
	Social cohesion and trust	- Population stating that they are without someone to count on in times of trouble - Population living in countries with a Palma ratio of 2 or more (the income share of the richest 10% of people relative to the poorest 40%)
	Political freedom and civil rights	- Population living in countries governed by an autocratic regime
	Peace and justice	- Population stating that they perceive widespread corruption in government and business - Population living in countries with a homicide rate of 5 or more per 100,000
	Freedom to exercise spirituality	FoRB indicators - OHCHR

- **Transform economic systems for nature and equity**

The IPBES TCA provides a structured list of socioeconomic indicators designed to capture governance, economic, and cultural dimensions of transformation. Each indicator was mapped to the underlying causes of biodiversity loss it addresses, so that measurable progress on an indicator reflects progress in tackling the corresponding structural cause of biodiversity decline.

However, many socioeconomic indicators in the IPBES TCA, such as access to health, education and basic services, were already captured under the NPE guiding principle *Ensuring a social foundation*. **To avoid duplication and to keep each guiding principle conceptually coherent, only those socioeconomic indicators not already addressed under the *Ensuring a social foundation* principle or any other principle were included in the *Transform economic systems for nature and equity* principle.** As a result, this principle retains indicators specifically linked to transforming governance, power relations, cultural norms, and economic structures.

The TCA socio-economic indicators were complemented with additional indicators capturing public and private subsidies, investments, and the share of NBEs, to better reflect the financial and structural incentives that either enable or obstruct progress toward a Nature-Positive Economy. These additions were necessary because financial flows and economic incentives play a decisive role in shaping production and consumption systems.

For subsidies and investments toward as “nature positive economic activities”, they also must meet criteria aligned with the NPE guiding principles. As a first step, this can be demonstrated by showing that the economic activities receiving financial support are explicitly linked to all relevant guiding principles: nature recovery, prosperity for all, respecting ecological limits, ensuring a social foundation, and contributing to economic transformation. **Actors applying the framework should therefore explain how the supported activity contributes to these principles first, and to which measurable outcomes or pathways it relates.** In addition, **subsidies or investments may meet EU Taxonomy’s criteria.** However, classification under the EU Taxonomy alone is not sufficient: the activity must still show alignment with all relevant NPE guiding principles, including social foundations and transformative change, to ensure coherence with the NPE vision and to avoid partial or narrow interpretations of “green” investment.

Table 6: Transform economic system for nature and equity, indicators and metrics examples

Guiding principle	Headline indicators	Metrics example (or where to find them)
Transform economic systems for nature and equity <i>Tackle the drivers and root causes of biodiversity loss, transforming views, structures and practices across political, economic, financial and social systems so they support nature restoration.</i>	Resilience of production systems	- Reduction of economic risks from nature and biodiversity loss - Share of enterprises adopting diversified or circular production systems - Exposure to climate- or nature- related supply risks (Eurostat & SDG 13.1)
	Institutional strength	- Control of corruption (SDG 16.6.1, 16.5.2)



		- Public participation in decision making (SDG 16.7.1)
	Inclusion of Indigenous peoples and local communities	- Level of participation in environmental governance
	Power equity	- Type of ownership - Distribution of decision-making power across stakeholder groups (SDG 16.7.1) - Worker representation in governance bodies
	Fair wealth distribution	- Level of inequality (e.g. wages) within primary industries compared to secondary industries; sectoral Gini coefficient (SDG 10.4.1; Eurostat income distribution)
	Poverty reduction	- Proportion of population below national poverty line (SDG 1.2.1; Eurostat: people at risk of poverty or social exclusion)
	Food security and sovereignty	- Prevalence of food insecurity (SDG 2.1.2) - Agricultural self-sufficiency ratios (Eurostat)
	Recognition of rights and values	- Existence of rights-based environmental policies (SDG 16.3)
	Access to land/sea	- Percentage of population with secure tenure rights (SDG 1.4.2)
	Enjoyment of natural beauty	- Access to green and blue spaces (SDG 11.7.1; Eurostat urban green space indicators)
	Type of ownership	- Share of cooperative, community-owned, or public-interest enterprises
	Subsidies for nature positive economic activities vs. nature negative economic activities	- Fossil fuel subsidies vs. biodiversity-positive subsidies (SDG 12.c.1)
	Investment in nature positive economic activities vs. nature negative economic activities	- Green investment flows (EU Taxonomy reporting) - Corporate CapEx/Opex aligned with biodiversity-positive actions (TNFD/SBTN metrics)
	Share of GVA from nature positive economic activities vs nature negative economic activities	- GVA in environmental goods and services/ GVA from high-impact sectors (Eurostat national accounts)
	Jobs in Nature-based Enterprises (NbEs)	Employment in e.g. ecosystem restoration, nature-based sectors.
	Share of nature positive economic activities	Share of turnover or output from activities meeting NPE-aligned criteria

	Extent to which consumption and production systems shift toward lower-impact materials, reduced resource throughput, and decreased dependence on imported high-impact goods	- Material footprint per capita and per GDP (SDG 12.2.1; Eurostat material flows) - Domestic material consumption - Embodied land-use change in imports (Eurostat footprint indicators) - Dependency on high-impact imported commodities (SDG 12.2; Eurostat trade/environment datasets)
--	--	---

4. Testing our framework in practice

4.1 Guiding principles and indicators from our pilots

Two pilots of the pilots constructed a sector-specific translation of the framework through the detailed guidelines to apply the translation process. The guidelines can be found in Appendix B. These two examples provide us with two first sets of operational indicators that be further tested and refined within the pilots. Other pilots will join suit in the coming months of the project and be included in the final deliverable.

4.1.1. Application of the framework from guiding principles to indicators: Agri-food example

In Appendix C below is the application of the GoNP! Guiding Principles framework by the agri-food pilot, the Flemish NGO Voedsel Anders. The way the pilot followed the process:

- 1) Voedsel Anders began by linking each of the Guiding Principles to the context of agroecology, which correspond to their **vision** on how agri-food systems can contribute to achieving a NPE. For each principle, they reflected on which agricultural practices, values, and governance approaches could operationalize this vision in practice. Through this, the pilot translated the broad NPE statements into sector-specific interpretations.

It emerges that agroecology covers the full breadth of the NPE framework, demonstrating that every guiding principle can be addressed with corresponding headline indicators. Therefore, their scope covered not only environmental aspects, but emphasized the interconnectedness between ecological integrity, social foundations, and socio-political and economic transformation, showing that agroecology inherently speaks to all pillars of the NPE. This can be quite rare but also a quite useful example on how a holistic interpretation of NPE can look in practice, how existing social movements and food-system actors can mobilize the NPE framework, but also **how the NPE framework acts a supporting structure to existing**

measurement frameworks, without the need of creating new metrics for the majority of headline indicators, as explained below.

- 2) Rather than providing a detailed list of metrics for each headline indicator, the pilot (as convener/pilot lead) mapped each selected headline indicator to existing, validated measurement frameworks that already contain adequate metrics. The intention was to build on well-established agroecological assessment systems that align with the transformative vision of the NPE, which can also be used by different agrifood-system actors. The pilot highlighted the following frameworks and the specific components within them that correspond to the NPE's headline indicators (for links and access to sources see Appendix A):
 - TAPE (FAO) - including Step 1 (with measurements about diversity, synergies, efficiency, circularity, co-creation of knowledge, cultural and food traditions) and Step 2 (quantitative measurements such as soil health, agricultural biodiversity, exposure to pesticides, women's empowerment, youth involvement, and livelihood outcomes).
 - OASIS Framework - especially the dimensions on farming practices, environmental and biodiversity outcomes, socio-political participation, and resilience.
 - AFAT (Africa Agroecology Financial Toolkit) - including elements on environmental sustainability, economic fairness, and social justice and participation.
 - ACT (Agroecology Criteria Tool) - Levels 1-5, which capture the progression from farm-level technical changes to structural, governance, and system-wide transformation.
- 3) The pilot also described how one could proceed from headline indicators to specific metrics. Rather than prescribing a single, fixed set of metrics for one or more actors, they suggested that the process would be best implemented following similar steps as Participatory Guarantee Systems (PGS) do. In such systems, different actors within the food system - policy makers, businesses, farmers, citizens - come together to collectively assess their degree of alignment with agroecological principles, and in this case they would do the same with NPE principles. Using the list of headline indicators and the existing measurement tools identified in the GoNP! framework, **each actor or group of actors can select the indicators that are most relevant to their own role, activities, and responsibilities**. Through this approach, the actors **collaboratively build their own PGS-based measurement system**, grounded in shared values and locally meaningful priorities. **Instead of imposing a top-down metric, the system grows from collective deliberation and mutual learning. This ensures that the chosen indicators are not only technically adequate but also socially legitimate and context-appropriate**. Once developed, this PGS measurement system can be used to report transparently to all interested stakeholders, including consumers, producers, other businesses, and institutions.

4.1.2. Application of the framework from guiding principles to indicators – Tourism example

In Appendix D the application of the GoNP! Guiding Principles framework by the tourism pilot can be found, constructed by Etifor, an environmental consultancy company that places nature at the heart of decision-making by developing science-based solutions. It works with organisations, destinations, and companies to improve the economic, environmental, and

social outcomes of policies, projects, and investments, with a strong focus on nature-based solutions, sustainability transitions, and impact measurement.

The tourism pilot focused on the Valsugana region in Trentino, Italy, a mountainous valley characterised by high natural and cultural value, including lakes, forests, agricultural landscapes, and small communities. Tourism in Valsugana is strongly connected to nature, outdoor recreation, and local identity, and the pilot explicitly framed tourism as a lever for regenerative and sustainable territorial development, rather than as an extractive activity. This made the region a suitable context for testing how the NPE guiding principles can be translated into a place-based tourism system.

Regarding their interpretation of the guiding principles, the tourism pilot adopted a place-based and regenerative perspective, translating each principle in relation to the functioning of a tourism destination embedded in a living landscape and local communities. Across the principles, tourism is consistently framed not as an end in itself, but as a means to support ecosystem recovery, community wellbeing, and long-term territorial resilience.

For *Full recovery of nature*, the pilot interpreted tourism activities as needing to actively contribute to restoring ecosystem integrity, connectivity, and resilience, moving beyond harm reduction toward net-positive ecological outcomes at destination level. Under *Prosperity for all*, tourism is understood as a driver of shared and equitable benefits, where economic value creation must translate into wellbeing, decent work, inclusion, and strengthened relationships between visitors, residents, and nature. *Respecting ecological limits* is interpreted through the lens of carrying capacity, resource efficiency, and low-impact operations, ensuring that tourism development remains within planetary and local ecological boundaries.

For *Transform economic systems for nature and equity*, the pilot emphasised the role of governance, investment, and destination management in reshaping tourism systems so that decision-making, value chains, and financial flows actively support nature restoration and community-led development. Finally, *Ensuring a social foundation* is translated into guaranteeing access to life's essentials, rights, and cultural heritage through inclusive and participatory tourism systems. Overall, the pilot's interpretation demonstrates a holistic reading of the NPE principles, recognising their interdependence and embedding them coherently within the tourism destination context.

Regarding the procedural requirements, the tourism pilot emphasised the importance of destination-level governance, participation, and accountability as enabling conditions for translating the guiding principles into practice. The pilot framed procedural requirements not as standalone criteria, but as cross-cutting conditions that shape how all principles are implemented. In particular, it highlighted the need for clear roles and responsibilities across public authorities, tourism businesses, civil society, and local communities; transparent monitoring and reporting mechanisms to avoid greenwashing; and participatory decision-making processes that integrate diverse knowledge systems and values. Progress is understood as needing to be measured across spatial and temporal scales, reflecting both immediate tourism impacts and longer-term ecosystem and social outcomes, while prioritising action in tourism activities and infrastructures with the highest pressures on nature.



Rather than compiling a single list of metrics, the pilot mapped headline indicators to established tourism and sustainability frameworks, including (for links and references see Appendix A):

- SF-MST (Statistical Framework for Measuring the Sustainability of Tourism): providing integrated environmental, social, and economic indicators at destination level, including ecosystem condition, emissions, employment, and community wellbeing.
- GDS-Index (Global Destination Sustainability Index): offering destination-level indicators on environmental quality, health, safety, governance, and social progress.
- ETIS (European Tourism Indicator System): supplying indicators on tourism intensity, accessibility, mobility, resource use, and resident and visitor perceptions.
- GSTC criteria and other tourism sustainability standards: supporting metrics on water risk, inclusiveness, labour conditions, and accessibility.
- Nature Positive Travel & Tourism and EU policy frameworks (e.g. Transition Pathway for Tourism): providing thematic alignment with biodiversity, climate action, and regenerative tourism practices.

In applying this mapping, the pilot explicitly highlighted that several indicators contribute to more than one guiding principle. These frameworks were therefore used as repositories of validated metrics, from which relevant indicators can be selected depending on actor type (e.g. destination managers, businesses, public authorities) and scale. The next steps of the process will involve engaging specific pilot stakeholders to select and operationalise the metrics most relevant to their roles, responsibilities, and spheres of influence, ensuring contextual relevance while maintaining alignment with the overarching NPE framework.

5. The GoNP framework as part of the landscape

5.1 Private actor engagement with measuring progress towards a Nature Positive Economy

The growing momentum behind the nature-positive agenda has spurred the development of various frameworks and methodologies that aim to guide companies and financial institutions in assessing, managing, and disclosing their impacts and dependencies on nature. While these initiatives differ in scope and focus, they provide a useful toolkit for companies to align with emerging global goals to halt and reverse nature loss. This section reviews some of the most prominent frameworks, assessing the extent to which they explicitly incorporate or support nature-positive outcomes. While the ones included are among the main frameworks, many different business-support organisations have merged and customised these to meet specific customer or industry needs.

A helpful way to make sense of the relationship between the patchwork of initiatives and frameworks described below is to situate them within the ACT-D (Assess, Commit, Transform, Disclose) structure, developed in a collaboration by leading organizations including the

Capitals Coalition, Business for Nature, WBCSD, TNFD, Science Based Targets Network, WEF and WWF. Figure 3 presents the main elements of this framework which provides a logical sequence of actions for companies aiming to contribute to a nature-positive economy:

- **Assess** impacts and dependencies on nature.
- **Commit** to clear, science-based goals.
- **Transform** operations to reduce harm and regenerate ecosystems.
- **Disclose** progress transparently.

Mapping the Main Focus of Relevant Frameworks to ACT-D

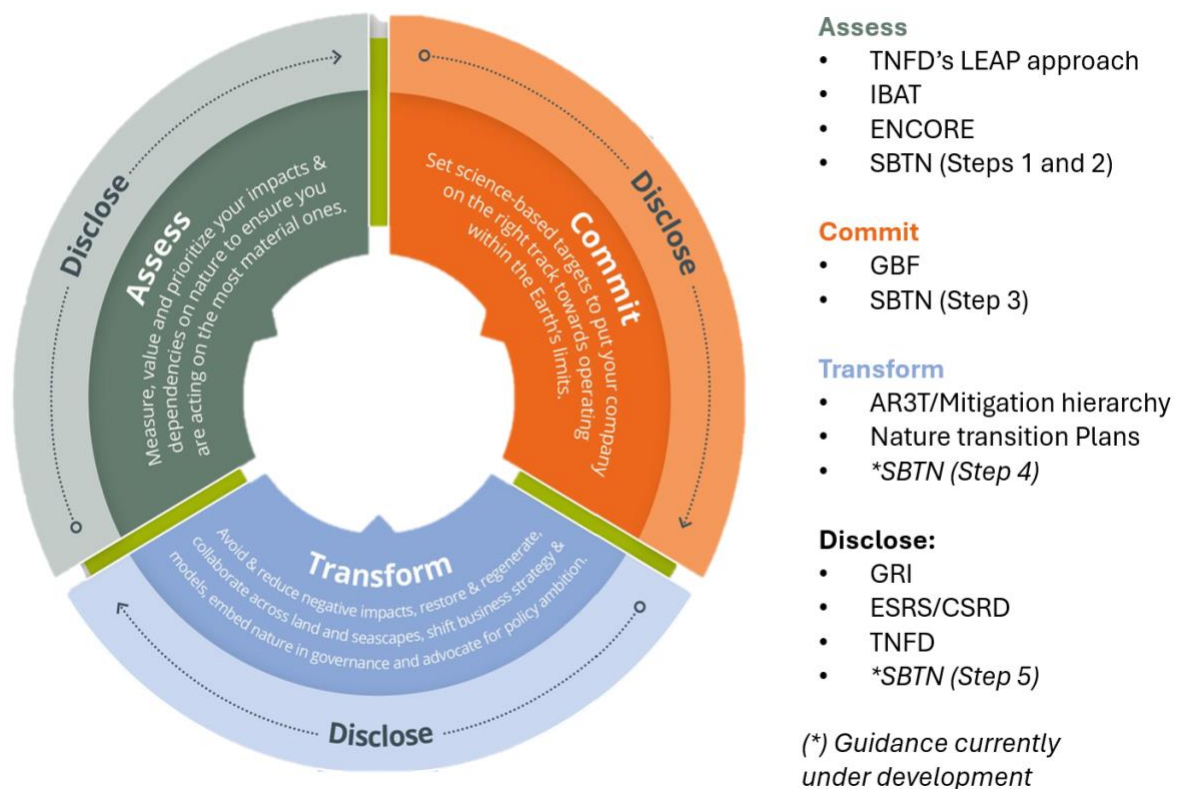


Figure 5 Mapping the main focus of relevant frameworks to ACT-D

Source: Adapted from Business for Nature's "High-level Business Actions on Nature"

In the next section, we situate relevant frameworks developed by other actors against the different elements of the ACT-D framework:

The Taskforce on Nature-related Financial Disclosures (TNFD) (TNFD, 2025) is a voluntary, market-led initiative that offers a structured approach to identifying, assessing, managing, and disclosing nature-related dependencies, impacts, risks, and opportunities (DIRO). Its primary offering is a series of recommendations and guidance to help organisations to report and act on nature-related topics with the ultimate goal of supporting nature-positive outcomes. TNFD's guidance includes the LEAP process (Locate, Evaluate, Assess, and Prepare) which provides the foundation for nature-related risk assessments and is increasingly referenced by regulators, including in the European Sustainability Reporting Standards (ESRS).

The LEAP approach represents a detailed methodology for conducting corporate biodiversity assessments. It begins by helping companies identify the "locations" and ecosystems with



which their operations and supply chains interact. This is followed by “evaluating” the dependencies and impacts on nature in those areas, “assessing” the materiality of related risks and opportunities, and “preparing” strategic responses and disclosures.

Supporting tools such as the “Integrated Biodiversity Assessment Tool” (IBAT) and “Exploring Natural Capital Opportunities, Risks and Exposure” (ENCORE) provide practical resources for operationalizing the TNFD LEAP approach. IBAT contributes primarily to the Locate (L) step by offering site-level biodiversity screening using global datasets on protected areas and Key Biodiversity Areas. ENCORE, in contrast is sector rather than location focused and supports the Evaluate (E) and Assess (A) steps by linking environmental changes to business risks and illustrating how different sectors depend on ecosystem services.

The “Commit” phase of the ACT-D framework is about setting clear, actionable goals that are informed by science and aligned with global ambitions. At the international policy level, the Kunming-Montreal Global Biodiversity Framework (GBF) establishes the normative backdrop for this ambition. Its headline objective to halt and reverse nature loss by 2030 and achieve full recovery by 2050 has become widely accepted as the backbone of the “nature-positive” goal. The GBF has catalysed numerous downstream initiatives and is explicitly referenced in disclosure regulations such as the EU’s Corporate Sustainability Reporting Directive (CSRD), as well as in the development of science-based targets for nature.

Among these initiatives, the Science Based Targets Network (SBTN) provides one of the most comprehensive operational pathways for companies to engage with the nature-positive agenda. A civil-society and science-led initiative, SBTN builds on the model of its climate-focused predecessor, the Science Based Targets initiative (SBTi), which developed methods to align corporate climate targets with the 1.5-degree goal of the Paris Agreement. In a similar way, SBTN provides science-based target-setting methods for nature for companies that align with the goals of the Global Biodiversity Framework (GBF). Its five-step process (1. Assess, 2. Prioritize, 3. Set Targets, 4. Act, and 5. Track) maps closely onto the ACT-D framework. Steps 1 and 2 help companies **assess** and prioritize their impacts and dependencies on nature to identify the most material pressures. Step 3 supports the **commit** phase by guiding companies in setting clear, science-based targets. Steps 4 and 5, currently in development, will provide structured guidance for the **transform** and **disclose** phases, covering implementation, measurement, monitoring, and reporting. Through this full-cycle approach, SBTN enables companies to translate global biodiversity goals into concrete, accountable actions across freshwater, land, and ocean realms, with biodiversity integrated across all three.



Box 2: Science-based targets for Oceans

The first version of the SBTN ocean targets, focused on the seafood value chain, addressing impacts from both wild capture fishing and aquaculture, launched in early 2025. These new targets provide a globally recognized, standardized framework to help companies with seafood in their supply chains move beyond traditional sustainability commitments, scale their action, and build long-term business resilience. The Ocean methods define three types of science-based targets that companies can set in the seafood sector:

1. Avoid and Reduce Overexploitation
2. Protect Structural Habitats
3. Reduce Risks to Endangered, Threatened, and Protected (ETP) Marine Wildlife Populations.

Each target has a series of different pathways that allow for multiple approaches to target-setting, depending on a company's context. Target setting follows company engagement with Steps 1 and 2 of SBTN – assessing and prioritizing impacts and dependencies on nature to identify the most material pressures and target boundaries. Following target setting (Step 3), companies then move onto implementation of response options (Step 4), and then measurement, monitoring and verification (Step 5).

In the "Transform" phase of ACT-D, companies are expected to adapt their operations, value chains, and business models to reduce their impacts, improve environmental outcomes and support the restoration of ecosystems. Foundational principles such as the mitigation hierarchy and AR3T (Avoid, Reduce, Restore and Regenerate, Transform) provide conceptual guidance for this shift. Emerging guidance on "nature transition planning" is beginning to offer more structured pathways for companies seeking to move toward nature-positive business models. These plans are increasingly seen as a necessary complement to climate transition plans (which align corporate strategies with the Paris Agreement's 1.5-degree goal). In parallel to climate transition plans, nature transition plans aim to align business activities with nature-related targets and policy frameworks such as the Global Biodiversity Framework. While the field is still evolving, recent publications from [TNFD](#)¹ and [WWF](#)² have begun to define the key elements of credible nature transition plans.

The "Disclose" phase of ACT-D focuses on transparency and accountability. The Global Reporting Initiative (GRI) is one of the most prominent sustainability reporting standard setters. Their biodiversity standard (GRI 101: Biodiversity 2024) offers a widely used reporting framework focused on corporate impacts on biodiversity, applying a double materiality perspective. While GRI does not frame its work directly in terms of nature-positive, its emphasis on measuring impacts on both people and ecosystems provides a complementary perspective to risk-oriented frameworks such as TNFD.

The Corporate Sustainability Reporting Directive (CSRD) and its associated European Sustainability Reporting Standards (ESRS), particularly ESRS E4 on biodiversity and ecosystems, represent a major regulatory shift in corporate disclosure requirements in the EU. These standards mandate companies to report on their impacts, risks, and dependencies related to nature, explicitly referencing TNFD's LEAP approach. ESRS does not formally use



the term nature-positive, but the structure of its disclosure requirements and its reference to planetary boundaries and the GBF clearly support the broader objectives of nature-positive transitions. Concerningly, recent revisions introduced through the Omnibus package have significantly weakened the scope of the CSRD. In particular, in an effort to reduce complexity, the European Commission delayed the adoption of sector-specific standards and exempted a large number of companies from reporting obligations that were originally foreseen. This backtracking has raised concerns about reduced transparency, weaker investor confidence, and a slowdown in the momentum toward robust nature-related disclosures across the EU market.

Taken together, the frameworks described in this section form a growing infrastructure for corporate action on nature. When applied through the ACT-D lens, they offer companies a practical sequence for moving from awareness to action. To illustrate this practically, we can look at the efforts of Mowi, the world's largest Atlantic salmon farmer. To **assess** its impacts and dependencies, Mowi has adopted the TNFD's LEAP (Locate, Evaluate, Assess, Prepare) approach, utilizing tools like benthic surveys and dispersion modelling to monitor seabed health, alongside screening sites against global databases (such as Key Biodiversity Areas and Marine Protected Areas) to identify high-risk locations. Building on this diagnosis, the company **committed** to ambitious sustainability goals, including translating identified nature risks into enforceable targets, including zero escapes and wildlife mortalities, deforestation-free feed sourcing, certified production standards, and site-level benthic and water stewardship thresholds. To **transform** its operations, Mowi applies the mitigation hierarchy through its "Mowi 4.0" Smart Farming strategy, using AI and real-time monitoring to optimize feed use and reduce waste, and has shifted its supply chain by sourcing deforestation-free soy and reducing dependency on marine ingredients in feed. Finally, it **discloses** progress through its Integrated Annual Report, which is aligned with the new European Sustainability Reporting Standards (ESRS) and includes a dedicated TNFD disclosure to transparently communicate its nature-related risks and opportunities.

Although comprehensive data on uptake of these frameworks is still limited, given their recent emergence, efforts are underway to track progress. Initiatives like the World Benchmarking Alliance are currently assessing how some of the world's most impactful companies, across sectors like food, mining and forestry, are engaging with these expectations, and in 2026 will be offering an emerging picture of how corporate action on nature is evolving.



Box 3: Nature Positive Ocean Pathways

Recognizing the imperative of company actions and transformative changes to reach the Nature Positive goal, WWF recently published a highly consultative report featuring guidance for the blue economy sectors. **Towards Nature Positive for the Ocean** is a first-of-its-kind guide highlighting credible, science-based actions that companies can take to support the global **nature-positive goal**.

What sets this report apart is its dedicated focus on the ocean's unique ecological, legal, and governance challenges, as well as its specificity: it provides both general and detailed guidance for key ocean-based sectors: **offshore wind, shipping, coastal and marine tourism, and seafood**.

Using the **AR3T action framework—Avoid, Reduce, Restore & Regenerate, and Transform**—the report outlines actionable pathways for companies to:

- Avoid future negative impacts on ocean ecosystems
- Reduce existing pressures where impacts are unavoidable
- Restore and regenerate degraded marine habitats
- Transform business models, practices, and value chains for long-term resilience

This report offers businesses a practical entry point to align with biodiversity goals and lead the way toward a sustainable, nature-positive ocean economy. It also highlights the importance of all societal actors – policymakers, financial institutions, civil society, and researchers – to engage, collaborate, and contribute to this shared vision.

5.2 Public actor engagement with measuring progress towards a Nature Positive Economy

Measuring progress towards a Nature-Positive Economy has many similarities to the academic and policy endeavours that search for a set of indicators to measure sustainability, wellbeing and to go beyond GDP as the most predominant indicator of economic performance. These initiatives provide inspiration for measuring progress towards a nature-positive economy but also point to the need for the GoNP! framework to build on what is already existing (Kubiszewski et al., 2025).

At the global level, the United Nations have piloted a number of initiatives of relevance to the NPE. The most notable is the 2030 Agenda for Sustainable Development and the **Sustainable Development Goals** (SDGs). This can be seen as one of the most comprehensive “Beyond GDP” frameworks agreed to and measured today (UN, 2023). The SDGs consciously address the shortcomings of GDP by including economic, social, and environmental dimensions. When compared to the guiding principles in this Milestone report, they provide a broad coverage, particularly for socio-economic-focused principles, leaving some gaps in the nature-focused GoNP! guiding principles. Procedural principles are present but weakly operationalised, largely embedded within governance-oriented targets in SDG16 and SDG17.

Also, the **Valuing What Counts Initiative** of the UN (2023) is an explicit move to go beyond GDP. It defines three outcome elements: well-being and agency, respect for life and the planet, and reduced inequalities and greater solidarity. This is to be achieved by 3 elements to pave the way to transformation: Participatory governance and stronger institutions,



innovative and ethical economies, and going from vulnerability to resilience. Both conceptually and in terms of priorities set, there is a clear common approach, though the GoNP framework emphasises much more the ecological limits and the importance of nature restoration as a starting point.

The UN **System of Environmental-Economic Accounting - Ecosystem Accounting (SEEA EA)** provides for an international statistical standard which can be used to track the “Full recovery of nature”, making it an interesting tool for this guiding principle. Also, **The Changing Wealth of Nations (CWON) Program of the** World Bank’s allows to track the value of assets, including produced, human, and natural capital. Both approaches allow to stress the natural basis of the economy and society and to track progress in terms of nature restoration.

The **OECD Better Life Index** has focused on developing metrics to measure the diverse experiences and living conditions of people, including aspects such as knowledge and skills, housing, environmental quality, social connections and so on. This work builds on the OECD’s work on “Beyond GDP” and provides indicators that can be tracked for all OECD countries.

At the European level, a number of European Commission reports have been published to measure sustainable and inclusive wellbeing (JRC, 2024), metrics for sustainable prosperity (De Dominicis et al., 2024), as well as work from EUROSTAT on quality of life indicators (Eurostat, 2017). These are cornerstones for selecting the right indicators for the guiding principles at the level of the EU and for policymakers.

6. Next steps: Consultation on the GoNP measurement framework



Figure 6: The next steps in testing and validating the guiding principles and indicators and incorporating them into an evaluation methodology

With this Milestone report we open our current work on guiding principles and indicators to measure progress towards the NPE to the wider public for further consultation and engagement. Consultation will run on two tracks, the first one being with targeted key stakeholders in bilateral meetings and on selected events. The second one is with the GoNP! Pilot sectors, with an iterative cycle of workshops to test and refine the context-specific guiding principles and indicators for multiple actors.

Apart from consultation and testing to further refine the guiding principles, we will also start working on the integration of the guiding principles and headline indicators into an evaluation framework, which will allow us to go from separate indicators to a grading system that indicates to what extent an actor or initiative is indeed contributing to the NPE. In this process we acknowledge that not all actors and sectors will be served by the same kind of evaluation methodology. For example, in the case of the agri-food system pilot, creating a formal standard may not be appropriate, but a self-reflective tool for farmers, for instance, would be far more suitable. Therefore, we aim to test three different versions of the evaluation methodology. The first will be co-constructed with World Benchmarking Alliance (WBA), based on reflections on how the principles of the NPE are covered in their current benchmark and how the indicator sets align. For the second, we will work together with ICLEI to test integration of our principles and indicators into the evaluation methodology of the CDP-ICLEI Track, the world's leading city climate reporting platform.



Box 4: CDP-ICLEI Track: Unified Climate & Biodiversity Reporting for Local Governments

CDP-ICLEI Track is the world's leading platform for cities, states, and regions to report on climate and environmental action. Launched in partnership between **CDP and ICLEI**, it offers a single, annual reporting interface, streamlining disclosure, improving data quality, and aligning with major global frameworks including:

- Global Covenant of Mayors (GCoM)
- C40 Cities
- Race to Zero / Race to Resilience
- Science-Based Targets Network

Why it matters: The Track facilitates the inclusion of biodiversity and ecosystem resilience in local climate action. Through its evolving methodology, it encourages integration of nature-based solutions and ecosystem-based adaptation, essential for building a Nature-Positive Economy.

Procurement link: By using data reported via CDP-ICLEI Track, local governments can inform procurement decisions that favour green infrastructure, NbS, and biodiversity-sensitive public investment.

2025 Questionnaire Features:

- Tailored pathways based on population, emissions, and HDI
- New simplified reporting options for low-resource jurisdictions
- Alignment with the EU Adaptation Mission and biodiversity frameworks

Learn more or start disclosing: myportal.cdp.net

For the third, we will continue working with the different pilots and aim to test an assessment methodology that serves different types of businesses, from corporates to SMEs, eventually with the aim of including it in a train the trainer programme should there be a need for this. This programme would be envisaged to enable the pilot partners to put in place a process to support nature-positive transformations for different organisations.

Based on these actions that serve to test, validate and improve the framework proposed in this Milestone report, we aim to have a finalised set of guiding principles and a sound methodology to put them into practice by the end of 2027, which marks the end of the project. The final framework will be included in a Deliverable report, including reflections on the achievements and prospects of the framework.

References

- Beske, F., Haustein, E., & Lorson, P. C. (2019). Materiality analysis in sustainability and integrated reports. *Sustainability Accounting, Management and Policy Journal*, 11(1), 162–186. <https://doi.org/10.1108/SAMPJ-12-2018-0343>
- Booth, H., Milner-Gulland, E. J., McCormick, N., & Starkey, M. (2024). *Operationalizing transformative change for business in the context of Nature Positive*. *One Earth*, 7(7), 1235–1249. <https://doi.org/10.1016/j.oneear.2024.06.003>
- Costanza, R., Hart, M., Talberth, J., & Posner, S. (2009). Beyond GDP: The Need for New Measures of Progress. *The Pardee Papers*. https://pdxscholar.library.pdx.edu/iss_pub/11
- Dasgupta, P. (2021). *The economics of biodiversity: The Dasgupta Review — Full report (Final Report, HM Treasury)*. HM Treasury. https://assets.publishing.service.gov.uk/media/602e92b2e90e07660f807b47/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf
- De Dominicis, L., Cabeza Martinez, B., Kovacic, M., Papadimitriou, E., & European Commission (Red.). (2024). *The EU regional Social Progress Index 2.0: 2024 edition*. Publications Office. <https://doi.org/10.2776/30173>
- Díaz, S., Settele, J., Brondízio, E. S., Ngo, H. T., Agard, J., Arneth, A., Balvanera, P., Brauman, K. A., Butchart, S. H. M., Chan, K. M. A., Garibaldi, L. A., Ichii, K., Liu, J., Subramanian, S. M., Midgley, G. F., Miloslavich, P., Molnár, Z., Obura, D., Pfaff, A., ... Zayas, C. N. (2019). Pervasive human-driven decline of life on Earth points to the need for transformative change. *Science*, 366(6471), eaax3100. <https://doi.org/10.1126/science.aax3100>
- European Commission. (2019, December 11). *The European Green Deal (Communication No. COM(2019) 640 final)*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640>
- European Commission Joint Research Centre (JRC). *Beyond GDP: Delivering sustainable and inclusive wellbeing*. European Commission. https://joint-research-centre.ec.europa.eu/projects-and-activities/beyond-gdp-delivering-sustainable-and-inclusive-wellbeing_en
- European Environment Agency. (2021). *Growth without economic growth (EEA Briefing 28/2020)*. <https://www.eea.europa.eu/en/analysis/publications/growth-without-economic-growth>
- European Parliament. (2023). *Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010 (Text with EEA relevance)*. <http://data.europa.eu/eli/reg/2023/1115/oj>
- Eurostat. (2017). *Quality of life indicators*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quality_of_life_indicators
- Fanning, A. L., & Raworth, K. (2025). Doughnut of social and planetary boundaries monitors a world out of balance. *Nature*, 646(8083), 47–56. <https://doi.org/10.1038/s41586-025-09385-1>
- Fiksel, J., Eason, T., & Frederickson, H. (2012). *A framework for sustainability indicators at EPA* (EPA/600/R-12/687) [PDF]. U.S. Environmental Protection Agency, Office of Research and Development. <https://www.epa.gov/sites/default/files/2014-10/documents/framework-for-sustainability-indicators-at-epa.pdf>
- GoNaturePositive!, Koh, N. S., Zandersen, M., Bull, J., Desair, J., Kupilas, B., & McQuaid, S. (2025). *Framing the Nature-Positive Economy*. Zenodo. <https://doi.org/10.5281/zenodo.17494450>

- Goodland, R., & Daly, H. (1996). Environmental Sustainability: Universal and Non-Negotiable. *Ecological Applications*, 6(4), 1002-1017. <https://doi.org/10.2307/2269583>
- Hayden, A. (2024). The wellbeing economy in practice: Sustainable and inclusive growth? Or a post-growth breakthrough? *Humanities and Social Sciences Communications*, 11(1), 879. <https://doi.org/10.1057/s41599-024-03385-8>
- Helliwell, J., Layard, R., Sachs, J., De Neve, J.-E., Aknin, L., & Wang, S. (2025). *Executive Summary*. University of Oxford. <https://doi.org/10.18724/WHR-NKM9-5M31>
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). (2019). *Global assessment report on biodiversity and ecosystem services* (E. S. Brondízio, J. Settele, S. Díaz, & H. T. Ngo, Eds.). IPBES Secretariat. <https://doi.org/10.5281/zenodo.3831673>
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). (2022). *Methodological assessment of the diverse values and valuation of nature*. IPBES Secretariat. <https://doi.org/10.5281/zenodo.7687931>
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). (2024). *Summary for Policymakers of the Thematic Assessment Report on the Underlying Causes of Biodiversity Loss and the Determinants of Transformative Change and Options for Achieving the 2050 Vision for Biodiversity*. In K. O'Brien, L. Garibaldi, A. Agrawal, E. Bennett, R. Biggs, R. Calderón Contreras, E. Carr, N. Frantzeskaki, H. Gosnell, J. Gurung, S. Lambertucci, J. Leventon, C. Liao, V. Reyes García, L. Shannon, S. Villasante, F. Wickson, Y. Zinngrebe, & L. Perianin (Eds.), IPBES Secretariat. <https://doi.org/10.5281/zenodo.11382230>
- IUCN. (2023). *Measuring Nature-Positive Setting and implementing verified, robust targets for species and ecosystems. Technical Source document Consultation Draft*. <https://iucn.org/sites/default/files/2023-11/iucn-nature-positive-contribution-v1.0.pdf>
- Jackson, T. (2009). *Prosperity without growth: Economics for a finite planet*. Routledge. Retrieved from <http://archive.ipu.org/splz-e/unga13/prosperity.pdf>
- Jansen, A., Wang, R., Behrens, P., & Hoekstra, R. (2024). Beyond GDP: A review and conceptual framework for measuring sustainable and inclusive wellbeing. *The Lancet Planetary Health*, 8(9), e695-e705. [https://doi.org/10.1016/S2542-5196\(24\)00147-5](https://doi.org/10.1016/S2542-5196(24)00147-5)
- Kubiszewski, I., Costanza, R., Eastoe, J., Lu, T., Mulder, K., Hernandez, G. P., Benczûr, P., & Dixon-Dectève, S. (2025). Building consensus on societal wellbeing: A semantic synthesis of indicators to move beyond GDP. *Ecological Indicators*, 178. <https://doi.org/10.1016/j.ecolind.2025.114076>
- Kubiszewski, I., Costanza, R., Franco, C., Lawn, P., Talberth, J., Jackson, T., & Aylmer, C. (2013). Beyond GDP: Measuring and achieving global genuine progress. *Ecological Economics*, 93, 57-68. <https://doi.org/10.1016/j.ecolecon.2013.04.019>
- Kuznets, S. (1934). *National income, 1929–1932. U.S. Senate, 73rd Congress, 2nd Session, Senate Document No. 124*. U.S. Government Printing Office.
- Marín-Beltrán, I., Demaria, F., Ofelio, C., Serra, L. M., Turiel, A., Ripple, W. J., Mukul, S. A., & Costa, M. C. (2022). Scientists' warning against the society of waste. *Science of The Total Environment*, 811, 151359. <https://doi.org/10.1016/j.scitotenv.2021.151359>
- Nature Positive Initiative. (2023). *The Definition of Nature Positive*. <https://www.naturepositive.org/app/uploads/2024/02/The-Definition-of-Nature-Positive.pdf>
- Nature Positive Initiative. (2025). *Measuring Nature Positive*. <https://www.naturepositive.org/>. <https://www.naturepositive.org/metrics/>
- Nature^Squared & SUSTAIN. (2024). *Changing the rules of the game: Reforming targets, regulations, and incentives to promote Nature Positive outcomes (Final report)*,

- SUSTAIN). <https://www.nature-squared.org/wp-content/uploads/2024/05/Changing-the-rules-of-the-game-SUSTAIN.pdf>
- OECD. (2020). *How's Life? 2020: Measuring Well-being*. OECD Publishing. <https://doi.org/10.1787/9870c393-en>
- Office of the United Nations High Commissioner for Human Rights (OHCHR). (n.d.). *Human rights indicators*. United Nations. <https://www.ohchr.org/en/instruments-and-mechanisms/human-rights-indicators>
- Petterson, J. (2025). *Doughnut Data Portraits: Indicator Library* (v1.0). Doughnut Economics Action Lab. <https://doi.org/10.64981/BOSY3928>
- Raworth, K. (2018). *Doughnut economics: Seven ways to think like a 21st century economist*. Chelsea Green Publishing.
- Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S. E., Donges, J. F., Drüke, M., Fetzer, I., Bala, G., von Bloh, W., Feulner, G., Fiedler, S., Gerten, D., Gleeson, T., Hofmann, M., Huiskamp, W., Kummu, M., Mohan, C., Nogués-Bravo, D., ... Rockström, J. (2023). Earth beyond six of nine planetary boundaries. *Science Advances*, 9(37), eadh2458. <https://doi.org/10.1126/sciadv.adh2458>
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S. I., Lambin, E., Lenton, T. M., Scheffer, M., Folke, C., Schellnhuber, H. J., Nykvist, B., De Wit, C. A., Hughes, T., Van Der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P. K., Costanza, R., Svedin, U., ... Foley, J. (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society*, 14(2), art32. <https://doi.org/10.5751/ES-03180-140232>
- Science Based Targets Network. (2025). *Materiality screening*. <https://sciencebasedtargetsnetwork.org/companies/take-action/assess/materiality-screening/>
- Skene, K. R. (2022). How can economics contribute to environmental and social sustainability? The significance of systems theory and the embedded economy. *Frontiers in Sustainability*, 3. <https://doi.org/10.3389/frsus.2022.980583>
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), 1259855. <https://doi.org/10.1126/science.1259855>
- TNFD. (2025). *The Taskforce on Nature-related Financial Disclosures*. <https://tnfd.global/>
- UN. (2025). *Sustainable Development Goals 2025 Report*. <https://unstats.un.org/sdgs/report/2025/The-Sustainable-Development-Goals-Report-2025.pdf>
- UN High Level Political Forum. (2018). *Sustainable Development and Happiness*. https://sustainabledevelopment.un.org/content/documents/19369Bhutan_NSDGR_Bhutan_2018.pdf
- UN. (2023). *Valuing What Counts: Framework to Progress Beyond Gross Domestic Product: Our Common Agenda Policy Brief 4* (UN Executive Office of the Secretary-General (EOSG) Policy Briefs and Papers) [UN Executive Office of the Secretary-General (EOSG) Policy Briefs and Papers]. <https://doi.org/10.18356/27082245-27>
- UNDP. (2024). *UNDP Annual Report 2024*. <https://www.undp.org/publications/undp-annual-report-2024>
- UNECE. (2015). *Quality of Employment Framework*. <https://unece.org/statistics/quality-employment-framework>
- United Nations Environment Programme Finance Initiative (UNEP FI). *The Sustainable Blue Economy Finance Principles*. UNEP FI, <https://www.unepfi.org/blue-finance/the-principles/>. Accessed 19 Dec. 2025.



- Van den Bergh, J. C. J. M. (2009). *The GDP paradox*. *Journal of Economic Psychology*, 30(2), 117–135. <https://doi.org/10.1016/j.joep.2008.12.001>
- Corlet Walker, C., & Jackson, T. (2019). *Measuring prosperity—Navigating the options (CUSP Working Paper No. 20)*. Centre for the Understanding of Sustainable Prosperity (CUSP), University of Surrey. <https://www.cusp.ac.uk/wp-content/uploads/WP20%E2%80%94Measuring-Prosperity.pdf>
- WISE Horizons. (2025). WISE Horizons. <https://wisehorizons.world/>
- Zambrano-Monserrate, M. A., Ruano, M. A., Ormeño-Candelario, V., & Sanchez-Loor, D. A. (2020). Global ecological footprint and spatial dependence between countries. *Journal of Environmental Management*, 272, 111069. <https://doi.org/10.1016/j.jenvman.2020.111069>

Appendix A – Overview of Sources

- Arcadis, ICF & EU Business & Biodiversity Platform. (2024). *Thematic report on biodiversity disclosure: Critical assessment of biodiversity accounting approaches for businesses* [PDF]. Green Finance Institute. https://www.greenfinanceinstitute.com/wp-content/uploads/2025/12/Thematic-Report-Biodiversity-Disclosure_April-2024.pdf
- Bakshi, B. R. (Ed.). (2023). *Engineering and ecosystems: Seeking synergies toward a nature-positive world*. Springer.
- Bartelmus, P. (2009). The cost of natural capital consumption: Accounting for a sustainable world economy. *Ecological Economics*, 68(6), 1850–1857. <https://doi.org/10.1016/j.ecolecon.2008.12.011>
- Biovision. (n.d.). *Agroecology Criteria Tool (ACT)*. Biovision. <https://www.biovision.ch/infopool/tools/act-agroecology-criteria-tool/>
- Brooks, S., Dimitrijevic, J., Dunn, K., Sehra, K., & Verstraeten, Y. (2021). *Measuring the Impact of Agricultural Supply Chains on Biodiversity—A corporate needs assessment*. Aligning Biodiversity Measures for Business collaboration.
- Bull, J., Baker, J., Griffiths, V. F., Jones, J. P. G., & Milner-Gulland, E. J. (2018). *Ensuring No Net Loss for people as well as biodiversity: Good practice principles*. <https://doi.org/10.31235/osf.io/4ygh7>
- Bull, J. W., Taylor, I., Biggs, E., Grub, H. M. J., Yearley, T., Waters, H., & Milner-Gulland, E. J. (2022). Analysis: The biodiversity footprint of the University of Oxford. *Nature*, 604(7906), 420–424. <https://doi.org/10.1038/d41586-022-01034-1>
- Convention on Biological Diversity. (2022). *Kunming–Montreal global biodiversity framework* (Decision 15/4). Secretariat of the Convention on Biological Diversity. <https://www.cbd.int/gbf>
- Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Li, Z., Delmar, A., Alqayam Meghji, Sethi, S. A., & Puente, J. T.-D. L. (2020). *FINANCING NATURE: Closing the Global Biodiversity Financing Gap*. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability. <http://rgdoi.net/10.13140/RG.2.2.26226.32968>
- European Commission. (2013). *European Tourism Indicator System (ETIS) for Sustainable Destination Management*. European Commission. <https://ec.europa.eu/DocsRoom/documents/15849>
- European Commission. Directorate General for Research and Innovation. (2021). *Evaluating the impact of nature-based solutions: Appendix of methods*. Publications Office. <https://data.europa.eu/doi/10.2777/11361>
- European Commission. (2022). *Transition Pathway for Tourism*. European Commission. <https://ec.europa.eu/docsroom/documents/49498/attachments/1/translations/en/renditions/native>
- European Commission. Joint Research Centre. (2024). *Gross ecosystem product in macroeconomic modelling*. Publications Office. <https://data.europa.eu/doi/10.2760/57602>
- Food and Agriculture Organization of the United Nations (FAO). (2019). *Tool for Agroecology Performance Evaluation (TAPE)*. FAO Agroecology Knowledge Hub. Retrieved December 19, 2025, from <https://www.fao.org/agroecology/tools-tape/en/>
- GDS-Movement. (2025). *Global Destination Sustainability Index (GDS-Index)*. GDS. <https://www.gds.earth/index/>



- Global Sustainable Tourism Council (GSTC). (2025). *GSTC Standards*. GSTC.
<https://www.gstc.org/gstc-criteria/>
- Groot, D. J., Morrell, E. C., Lammerant, J., Dieleman, W., & Verhelst, J. (2024). *Changing rules of the game – Reforming targets, regulations, and incentives to promote Nature Positive outcomes*. SUSTAIN.
- Haga, C., Maeda, M., Hotta, W., Matsui, T., Nakaoka, M., Morimoto, J., Shibata, H., Hashimoto, S., Saito, O., Okayasu, S., Kim, H., & Peterson, G. (2023). Modeling desirable futures at local scale by combining the nature futures framework and multi-objective optimization. *Sustainability Science*. <https://doi.org/10.1007/s11625-023-01301-8>
- Hammerl, M., Scholz, M., Schulz, S., Lösing, L., Lösing, L., & Hörmann, S. (2023). *Guidance 2023 How to address biodiversity protection through environmental management systems*. Lake Constance Foundation and Global Nature Fund.
- Hoekstra, R., Culot, M., Gattás, M., Hough-Stewart, L., Humphries, R., Janoo, A., Meynen, N., & Wiese, K. (2022). *THIS IS THE MOMENT TO GO BEYOND GDP*. WWF, WEAll, EEB.
- Holden, A., Jamal, T., & Burini, F. (2022). The Future of Tourism in the Anthropocene. *Annual Review of Environment and Resources*, 47(1), 423–447.
<https://doi.org/10.1146/annurev-environ-120920-092529>
- IUCN. (2023). *Measuring Nature-Positive Setting and implementing verified, robust targets for species and ecosystems. Technical Source document Consultation Draft*.
<https://iucn.org/sites/default/files/2023-11/iucn-nature-positive-contribution-v1.0.pdf>
- Knight-Lenihan, S. (2023). Ecological health and integrity in New Zealand legislation. *Australasian Journal of Environmental Management*, 30(1), 6–25.
<https://doi.org/10.1080/14486563.2023.2179117>
- Lammerant, J., Driesen, K., Verhelst, J., Ryck, J. D., & Verstraeten, Y. (2022). *Assessment of Biodiversity measurement approaches for Businesses and Financial Institutions—Update 4*. European Commission.
- Layman, H., Akçakaya, H. R., Irwin, A., zu Ermgassen, S., Addison, P., & Burgman, M. (2024). Short-term solutions to biodiversity conservation in portfolio construction: Forward-looking disclosure and classification-based metrics. *Business Strategy and the Environment*, 33(3), 1778–1793. Scopus. <https://doi.org/10.1002/bse.3570>
- Narain, D., Bull, J. W., Alikhanova, S., Evans, M. C., Markham, R., & Maron, M. (2022). A step change needed to secure a nature-positive future—Is it in reach? *One Earth*, 5(6), 589–592. <https://doi.org/10.1016/j.oneear.2022.05.016>
- Nature Positive Initiative. (2025, January 17). *Draft State of Nature Metrics for Piloting—Post-Consultation Updates*.
https://www.naturepositive.org/app/uploads/2025/02/Draft-State-of-Nature-Metrics-for-Piloting_170125.pdf
- Otero, I., Rigal, S., Pereira, L., Kim, H., Gamboa, G., Tello, E., & Grêt-Regamey, A. (2024). Degrowth scenarios for biodiversity? Key methodological steps and a call for collaboration. *Sustainability Science*. <https://doi.org/10.1007/s11625-024-01483-9>
- Partnership for Social Accountability (PSA) Alliance. (2022). *Agroecology Financing Analysis Toolkit (AFAT) for the public sector in Africa*. PSA Alliance.
<https://www.fao.org/family-farming/detail/en/c/1632318/>
- Pascual, U., Balvanera, P., Anderson, C. B., Chaplin-Kramer, R., Christie, M., González-Jiménez, D., Martin, A., Raymond, C. M., Termansen, M., Vatn, A., Athayde, S., Baptiste, B., Barton, D. N., Jacobs, S., Kelemen, E., Kumar, R., Lazos, E.,



- Mwampamba, T. H., Nakangu, B., ... Zent, E. (2023). Diverse values of nature for sustainability. *Nature*, 1–11. <https://doi.org/10.1038/s41586-023-06406-9>
- Sarkodie, S. A., Owusu, P. A., & Taden, J. (2023). Comprehensive green growth indicators across countries and territories. *Scientific Data*, 10(1), 413. <https://doi.org/10.1038/s41597-023-02319-4>
- SBTN. (2025). *Land targets – Science Based Targets Network*. <https://sciencebasedtargetsnetwork.org/companies/take-action/set-targets/land-targets/>
- Shaikh, S. F. E. A., & Hamel, P. (2023). Identifying nature-positive futures in new cities: An application of the Urban Nature Futures Framework. *Sustainability Science*. <https://doi.org/10.1007/s11625-023-01411-3>
- Škorjanc, K., Peeters, A., Wezel, A., & Migliorini, P. (2021). *OASIS: The Original Agroecological Survey Indicator System – Methodology and guidelines for the assessor*. Agroecology Europe. https://www.agroecology-europe.org/wp-content/uploads/2022/03/OASIS_20_01_digital_spreads.pdf
- Taylor, I., Bull, J. W., Ashton, B., Biggs, E., Clark, M., Gray, N., Grub, H. M. J., Stewart, C., & Milner-Gulland, E. J. (2023). Nature-positive goals for an organization's food consumption. *Nature Food*, 4(1), 96–108. <https://doi.org/10.1038/s43016-022-00660-2>
- The University of Cambridge Institute for Sustainability Leadership (CISL) & 3Keel. (2022). *Modelling Nature-Positive Land Management: Lessons from the East of England Landscape Enterprise Network* [Text]. Cambridge: The University of Cambridge Institute for Sustainability Leadership. <https://www.cisl.cam.ac.uk/news-and-resources/publications/modelling-nature-positive-agriculture-and-land-management-case>
- TNFD. (2023a). *Discussion paper on Draft sector metrics*.
- TNFD. (2023b). *Recommendations of the Taskforce on Nature-related Financial Disclosures*.
- United Nations World Tourism Organization (UN Tourism). (2024). *Statistical Framework for Measuring the Sustainability of Tourism (SF-MST)* (Final draft). UN Tourism. https://unstats.un.org/UNSDWebsite/statcom/session_55/documents/BG-4a-SF-MST-E.pdf
- UNDP, SCBD, & UNEP-WCMC. (2021). *Creating a Nature Positive Future: The Contribution of Protected Areas and Other Effective Area-Based Conservation Measures*.
- UNEP (Ed.). (2024). *Bend the trend: Pathways to a liveable planet as resource use spikes*. International Resource Panel.
- WEF. (2024). *Nature Positive: Guidelines for the Transition in Cities*. https://www3.weforum.org/docs/WEF_Nature_Positive_Guidelines_for_the_Transition_in_Cities_2024.pdf
- World Economic Forum. (2020, January 22). *Toward common metrics and consistent reporting of sustainable value creation [White paper]*. World Economic Forum. <https://www.weforum.org/publications/toward-common-metrics-and-consistent-reporting-of-sustainable-value-creation/>
- World Travel & Tourism Council (WTTC). (2024). *Nature Positive Travel & Tourism in Action: A framework for embedding nature positive approaches in tourism*. WTTC. <https://sustainablehospitalityalliance.org/wp-content/uploads/2024/04/Nature-Positive-Travel-Tourism-in-Action-April-2024.pdf>



- WWF. (2024). *Attracting investment in Nature Based Solutions: How NBS projects can apply the TNFD reporting framework*.
- Xue, Y., Aleissa, Y. M., & Bakshi, B. R. (2023). An Ecologically Safe and Socially Just Supply Chain Design for Li-battery. In *Computer Aided Chemical Engineering* (Vol. 52, pp. 3435–3440). Elsevier. <https://doi.org/10.1016/B978-0-443-15274-0.50548-5>
- Xue, Y., & Bakshi, B. R. (2022). Metrics for a nature-positive world: A multiscale approach for absolute environmental sustainability assessment. *Science of The Total Environment*, 846, 157373. <https://doi.org/10.1016/j.scitotenv.2022.157373>
- Young, D., Aboobakar, A., Curtis, T., Draisey, Z., Fitton, R., Grundmann, L., Higgs, R., Howard, B., Macedo, C., McAleese, L., Pinkerton, V., Shah, R., Tremolet, S., & Twining, S. (2002). *Financing Nature Recovery UK: Scaling Up High-Integrity Environmental Markets Across the UK*. London, United Kingdom. <https://irp.cdn-website.com/82b242bb/files/uploaded/FINAL%20Financing%20UK%20Nature%20Recovery%20Final%20Report%20ONLINE%20VERSION.pdf>
- Zu Ermgassen, S. O. S. E., Howard, M., Bennun, L., Addison, P. F. E., Bull, J. W., Loveridge, R., Pollard, E., & Starkey, M. (2022). Are corporate biodiversity commitments consistent with delivering ‘nature-positive’ outcomes? A review of ‘nature-positive’ definitions, company progress and challenges. *Journal of Cleaner Production*, 379, 134798. <https://doi.org/10.1016/j.jclepro.2022.134798>



Appendix B – Translation process template, from guiding principles to headline indicators

Step 1: From general guiding principles to pilot specific principles

Guiding principles are intentionally broad and conceptual and should be applicable to all actors in the NPE. However, the way these principles are translated into practice can vary widely depending on local conditions and sectoral priorities.

Each pilot begins by asking for each guiding principle:

What does *[guiding principle]* mean for my sector?

Then, pilots only translate the explanation text (second column in the Table 1 below, row 3 in the excel) of each guiding principle.

Table 1b: *Outcomes of NPE and how to get there* - Column 4 only presents examples of potential formulations, but pilots are free to choose the formulation that best fits their vision in column 5 (Pilot translation).

Table 2b: *Procedural requirements* - Pilots are free to explain how they will meet the procedural requirement in the Pilot translation column

Table 1a. Outcomes of a NPE and how do we get to a NPE

Guiding principle (title)	Guiding principle of the NPE (explanation)	Policy goals (an inspiration from official documents)	Guiding principles for agri-food in the NPE (explanation)	Pilot translation (to fill in by pilots)
Full recovery of nature	The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, achieving a net-positive trend towards full recovery			
Prosperity for all	Prosperity for all increases with nature, equitably and just, leaving no-one behind			



Respecting ecological limits	Reduce pressures from production and consumption to respect planetary boundaries so that we live in harmony with nature.			
Transform economic systems for nature and equity	Tackle the drivers and root causes of biodiversity loss, transforming views, structures and practices across political, economic, financial and social systems so they support nature restoration.			
Ensuring a social foundation	Ensure that no one is left falling short on life's essentials, respect international human rights obligations, to secure the well-being of present and future generations			

Table 2b. Procedural requirements

Guiding principle (title)	Guiding principle of the NPE (explanation)	<u>Pilot Translation (to fill in by pilots)</u>
Accountability on all guiding principles	All actors are responsible for their commitments and impacts on nature through transparent mechanisms to ensure credibility and avoid greenwashing	



Every actor has a role to play	A whole-of-society approach is essential, where all stakeholders contribute collectively to the transition, each with distinct responsibilities and capacities	
Progress is measured at all scales	Monitoring and evaluation occur across spatial and temporal scales, using integrated and context-specific indicators to ensure actions contribute effectively to net nature recovery	
Drive systemic change in sectors most responsible for biodiversity loss	The greatest focus for change must be on high-impact sectors where the potential for nature recovery is largest	
Represent diverse worldviews and multiple values of nature	Decision-making integrates diverse values and knowledge system to ensure equitable, culturally respectful nature recovery	

Step 2: From headline indicators to pilot specific indicators

Once the pilot has adapted the guiding principles to its context, the next step is to:

- Review the list of headline indicators linked to each principle
- Select the indicators that best capture the most important dimension of the pilot-specific principle
- Define how to measure them, using existing metrics where possible, or designing new ones.

At this stage, it is possible to distinguish sets for different actors.

Table 3b: *From pilot-specific principles to indicators* - Pilots can tick one or more headline indicators from column 4 (Headline indicators' list). For each of the headline



indicators selected they can specify how they are going to measure it in column 5 (metric)

Table 3b: from pilot-specific principles to indicators

Guiding principle (title)	Guiding principle of the NPE (explanation)	Sector-specific explanation (Pilot translation)	Headline indicators' list - boxes to tick by pilots	<u>Sector-specific indicators (metric) - to fill in by pilots</u>
Full recovery of nature	The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, achieving a net-positive trend towards full recovery		☐ Extent of nature ☐ Condition of nature	
Prosperity for all	Prosperity for all increases with nature, equitably and just, leaving no-one behind		☐ Physical and mental health (psychological wellbeing) ☐ Trust, security, and sense of community ☐ Meaningful relationships ☐ Meaningful employment ☐ Ability to participate to the life of society ☐ Good quality of life ☐ Access to recreation ☐ Equity	
Respecting ecological limits	Reduce pressures from production and consumption to		☐ Ocean acidification	



	respect planetary boundaries so that we live in harmony with nature.		☐ Chemical pollution ☐ Nutrient pollution ☐ Air pollution ☐ Freshwater pollution ☐ Land conversion ☐ Climate change ☐ Ozone-layer depletion	
Transform economic systems for nature and equity	Tackle the drivers and root causes of biodiversity loss, transforming views, structures and practices across political, economic, financial and social systems so they support nature restoration.		☐ Enjoyment of natural beauty ☐ Food security and sovereignty ☐ Recognition of rights and values ☐ Access to land/sea ☐ Promotion of rights-based approaches ☐ Institutional strength – social participation ☐ Inclusion of Indigenous Peoples and local communities ☐ Power equity ☐ Fair wealth distribution ☐ Poverty reduction ☐ Resilience of production systems	



Ensuring a social foundation	Ensure that no one is left falling short on life's essentials, respect international human rights obligations, to secure the well-being of present and future generations		☐ Access to food and nutrition ☐ Access to health ☐ Access to knowledge and quality education ☐ Provision of decent work, salary, and employment ☐ Water security ☐ Access to reliable energy ☐ Access to transport and digital connectivity ☐ Access to adequate housing and shelter ☐ Gender and social equality ☐ Reduction to discrimination ☐ Social cohesion and trust ☐ Political freedom and civil rights ☐ Peace and justice ☐ Freedom to exercise spirituality	
-------------------------------------	--	--	---	--



Appendix C – Agri-food pilot application of the translation framework

Full recovery of nature	The agri-food system actively supports and constructs biodiverse landscapes, with healthy soils; ecosystems and habitats for all organisms; a wide agrobiodiversity in insects and plants, but also seeds, crops and breeds; healthy animals; good water and air quality; so that agroecological production is the most feasible and realistic way, as crop and animal health is supported by a healthy, balanced and resilient agro-ecosystem.	☐ Extent of nature ☐ Condition of nature	- Metrics NRR Art. 11 - TAPE Step 1: diversity, synergies, efficiency, recycling - TAPE Step 2: agricultural biodiversity, exposure to pesticides, soil health - OASIS: dimension farming practices, dimension environment and biodiversity - AFAT Africa dimension Environmental sustainability - ACT Level 1-3
Prosperity for all	The right to food and food sovereignty is protected and actively enforced by the agri-food system. Everyone has access (physical, financial, cultural) to healthy food, that is produced in harmony with and with respect for nature. Peasants, rural workers and indigenous and local populations obtain decent and fair livelihoods and have the power over their production and knowledge systems, so that both rural and urban populations are thriving. Global health is increasing thanks to the agri-food system. The multiple functions	☐ Physical and mental health (psychological wellbeing) ☐ Trust, security, and sense of community ☐ Meaningful relationships ☐ Meaningful employment ☐ Ability to participate to the life of society ☐ Good quality of life ☐ Access to recreation ☐ Equity	- TAPE Step 1: efficiency, resilience, culture&food tradition, co-creation&sharing of knowledge, human & social values, circular and solidarity economy, responsible governance - TAPE step 2: income&productivity, youth employment and integration, women's empowerment, minimum dietary diversity for women - OASIS: dimension economic viability, socio-political aspects, resilience



	of agriculture (food production, landscape restauration, social cohesion, care, culture...) are acknowledged, valued and enforced.		- AFAT Africa dimension social justice and participation, dimension economic fairness and participation - ACT Level 3-5
Respecting ecological limits	The agrifood system operates within the planetary boundaries, reducing emissions of GHG and toxic products in the whole food system. Therefore, chemical inputs and fossil fuel use are phased out. Instead our production systems rely on and strengthen biodiverse agro-ecosystems.	☐ Ocean acidification ☐ Chemical pollution ☐ Nutrient pollution ☐ Air pollution ☐ Freshwater pollution ☐ Land conversion ☐ Climate change ☐ Ozone-layer depletion	- TAPE Step 1: diversity, synergies, efficiency, recycling - OASIS: dimension farming practices, dimension environment and biodiversity - ACT Level 1-3
Transform economic systems for nature and equity	Food sovereignty is the basis of the agri-food system. The agri-food system provides for universal access to healthy and culturally appropriate food—produced through ecologically sound and sustainable methods for all. Our socio-political and economic system is centered around food sovereignty, justice and equity. Colonial, racist, patriarchal, capitalist, imperialist, neoliberal systems that drive extractivist, monoculture and chemical agriculture and therefore biodiversity degradation and peoples' oppression are dismantled. Instead, alternative, decommmodified, feminist and care economies that ensure equity, justice and	☐ Enjoyment of natural beauty ☐ Food security and sovereignty ☐ Recognition of rights and values ☐ Access to land/sea ☐ Promotion of rights-based approaches ☐ Institutional strength – social participation ☐ Inclusion of Indigenous Peoples and local communities ☐ Power equity ☐ Fair wealth distribution ☐ Poverty reduction ☐ Resilience of production systems	- TAPE Step 0 - TAPE Step 1: Diversity, efficiency, resilience, culture&food tradition, co-creation & sharing of knowledge, human & social values, circular and solidarity economy, responsible governance, - TAPE step 2: land tenure, income & productivity, youth employment and integration, women's empowerment, minimum dietary diversity for women - OASIS: dimension economic viability, dimension socio-political aspects, dimension resilience - AFAT Africa dimension social justice and participation,



	peace are established and strengthened. Debts of the Global South are cancelled to ensure a globally just and equitable, sovereign and autonomous food system everywhere.		dimension economic fairness and participation - ACT Level 3 - 5
Ensuring a social foundation	The agrifood system connects with other struggles for basic needs, such as housing, energy, water, education, healthcare, peace, freedom, sovereignty and autonomy. The agrifood system is free of oppression and violence, but instead contributes to universal wellbeing. It actively resists privatisation and commodification of land, water, seeds, knowledge and other essential goods and services that should be part of the public realm and accessible to all.	☐ Access to food and nutrition ☐ Access to health ☐ Access to knowledge and quality education ☐ Provision of decent work, salary, and employment ☐ Water security ☐ Access to reliable energy ☐ Access to transport and digital connectivity ☐ Access to adequate housing and shelter ☐ Gender and social equality ☐ Reduction to discrimination ☐ Social cohesion and trust ☐ Political freedom and civil rights ☐ Peace and justice ☐ Freedom to exercise spirituality	- TAPE Step 1: recycling, resilience, culture & food tradition, co-creation & sharing of knowledge, human & social values, circular and solidarity economy, responsible governance - TAPE Step 2: income & productivity, youth employment and integration, women's empowerment - OASIS: dimension economic viability, dimension socio-political aspects, dimension resilience - AFAT Africa dimension social justice and participation, dimension economic fairness and participation - ACT Level 3 – 5 - Other: - o Intersectional approach to other social struggles - o decoloniality



Appendix D – Tourism pilot application of the translation framework

Full recovery of nature	The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, achieving a net-positive trend towards full recovery	All tourism activities must be designed to actively maintain, enhance, and ultimately restore the natural and cultural ecosystems of the destination. Tourism projects and guest experiences are specifically structured to contribute toward a net-positive ecological outcome for the place. This is achieved by protecting and increasing local biodiversity, regenerating degraded landscapes to improve their ecological health, and critically, strengthening the resilience and connectivity of habitats to ensure the long-term well-being of the entire living system. This approach mandates a shift from	✓ Extent of nature ✓ Condition of nature	SF-MST: • Regional ecosystem extent account: area of tourism-related ecosystem assets classified by type • Share of tourism-related ecosystem assets on the total area of the region • Percentage of marine and terrestrial protected areas • Ecosystem Condition Status (specific indicators vary according to the ecosystem. E.g. Ecological Quality Ratio (EQR) for Rivers) • Species Accounts • Water Resource Quality Global Destination Sustainability Index (GDS-Index) when not listed above: • Green and Blue Areas: The size of the city's green and blue areas measured in hectares per 100,000 population (Criterion EN-20) • Air Quality: Annual concentration of particulate matter, specifically PM2.5 (Criterion EN-12) and PM10 (Criterion EN-13) From Nature Positive Travel & Tourism Toolbox when not listed above: • Species Extinction Risk: Utilization of the STAR (Species Threat Abatement and Recovery) metric to assess the extinction
--------------------------------	--	---	---	--



		merely mitigating harm to intentionally delivering measurable benefits that leave the host environment healthier than before the visit.		risk of species in a specific location From ETIS when not listed above: • Beach Quality: The percentage of beaches awarded the Blue Flag, which serves as a proxy for environmental quality and safety • Landscape and Biodiversity Protection: The percentage of local tourism enterprises actively supporting the protection and conservation of local biodiversity and landscapes • Sand Nourishment: The area and volume of sand nourishment (relevant for maintaining the physical extent of coastal assets) • Free Beaches: Total kilometers of free beaches relative to total kilometers of beaches
Prosperity for all	Prosperity for all increases with nature, equitably and just, leaving no-one behind	Tourism should intentionally generate shared, equitable social and economic prosperity, ensuring that the well-being and wealth of communities grow in harmony with nature, never at its expense. By prioritizing regenerative tourism models, nature-based experiences, and genuinely community-led enterprises, we create	☐ Physical and mental health (psychological wellbeing) ☐ Trust, security, and sense of community ☐ Meaningful relationships ☐ Meaningful employment ☐ Ability to participate to the life of society ☐ Good quality of life ☐ Access to recreation ☐ Equity	From SF-MST: • Subjective well-being of host communities • Perception of tourism effects on quality of life • Perceptions of safety and security • Perceptions of interactions with visitors • hourly earnings, • hours of work per week • Gender rate • Average Age • Average time in job • % Nationality • % of Work formality • Number of employees covered by pension scheme • Job satisfaction • Retention • Staff turnover • women who faced gender discrimination in career prospects



		stable, green jobs and inclusive livelihoods. This approach ensures that economic benefits are distributed broadly, empowering local populations and guaranteeing that no community is left behind in the transition toward a regenerative future.		• women who faced sexual harassment in career prospects • percentage of tourism operators with formal commitments to gender equality • Proportion of women in managerial positions • tourism businesses providing day-care for employees' children • Median and mean monthly remuneration of employees disaggregated by gender • Number and % of participants to planning processes by stakeholder group • Perceptions of effects of tourism on local levels of congestion, noise, crowdedness and • access to community facilities. • Perceptions on effects of tourism on the prevailing culture identity. • Perceptions of effects of tourism on access to and quality of public services. • Perceptions on effects of tourism on job creation and employment (including seasonal employment). • Perceptions on tourism's collaboration with wider local business and community organizations. • Perceptions on the negative and positive contribution of tourism to overall wellbeing. • Perception of effects on cost of living, including housing affordability, due to tourism.
--	--	--	--	---



				• The number of visitors and locals participating to nature experiences related to recreation-related ecosystem services (e.g., hiking, swimming, wildlife watching) • Share of tourism value added • Number of official tourist information websites featuring destination's accessibility. • Implementation of minimum accessibility requirements (e.g. access ramps) for the accommodation sector. • Existence/No of employees trained on service provision to customers with disabilities. • Number of establishments providing information on allergens. • • Number of establishments providing information to clients to support their access • to the venue. • • Number of establishments providing menus in Braille. • Number of official complaints to public tourism administrations on destinations' accessibility From GDS if not listed above: • The country's score for "Health" on the Social Progress Index • The country's score on the Corruption Perception Index
--	--	--	--	---



				• The country's score for "Safety" on the Social Progress Index • The country's score for "Inclusive Society" on the Social Progress Index From ETIS if not listed above: • Percentage of tourists who register a complaint with the police • Percentage of men vs. women employed in tourism • Direct tourism employment as a percentage of total employment • percentage of jobs that are seasonal • Number of tourists per 100 residents (tourism intensity) • Percentage of rooms, public transport, beaches and tourist attractions accessible to people with disabilities
Respecting ecological limits	Reduce pressures from production and consumption to respect planetary boundaries so that we live in harmony with nature.	Tourism planning, operations, and infrastructure operate within ecological limits , minimizing pressures on land, water, and biodiversity. Activities contribute to a regenerative, low-impact economy , ensuring that visitor experiences and	☐ Ocean acidification ☐ Chemical pollution ☐ Nutrient pollution ☐ Air pollution ☐ Freshwater pollution ☐ Land conversion ☐ Climate change ☐ Ozone-layer depletion	From SF-MST: • emissions of PM2.5 and PM10 (i.e. particulate matter of size <2.5 and <10 microns respectively), sulfur dioxide, nitrous oxides, volatile organic compounds (VOC), ammonia and heavy metals • Tourism GHG emissions account • Internal tourism GHG emissions per visitor • Internal tourism GHG emissions per unit of tourism direct GDP • Energy consumption by type and industry



		investments align with the carrying capacity of ecosystems.		• % of energy consumption from renewables • Renewable energy production • Solid waste by type and industry • Tourism solid waste generated per visitor • Tourism solid waste generated per unit of tourism direct GDP • wastewater to treatment • Tourism wastewater per visitor overnight • Land use • Land use change • Water chemical quality • Soil fertility From ETIS if not listed above: • percentage of visitors using different modes of transport and the average travel distance to reduce transport impact • Seawater Quality: Level of pollution in seawater per 100 ml (faecal coliforms, campylobacter) • Contamination Closures: The number of days per year a beach or shore is closed due to contamination • Sewage Treatment: The percentage of sewage treated to at least a secondary level prior to discharge • Percentage of tourism enterprises involved in climate change mitigation schemes (e.g., CO2 offset) Other indicators listed under Prosperity for all
Transform economic systems	Tackle the drivers and root causes	Policies, financing models, and	☐ Enjoyment of natural beauty	From SF-MST: • extent of civic engagement and



for nature and equity	of biodiversity loss, transforming views, structures and practices across political, economic, financial and social systems so they support nature restoration.	governance frameworks are transformed so that all tourism decisions actively support nature restoration. This includes valuing ecosystem services, embedding biodiversity and sustainability criteria in tourism development, and redirecting investments from environmentally harmful practices toward nature-positive, community-led solutions.	☐ Food security and sovereignty ☐ Recognition of rights and values ☐ Access to land/sea ☐ Promotion of rights-based approaches ☐ Institutional strength—social participation ☐ Inclusion of Indigenous Peoples and local communities ☐ Power equity ☐ Fair wealth distribution ☐ Poverty reduction ☐ Resilience of production systems	stakeholder participation in decision-making processes • Total number of trips and overnights broken down by inbound, domestic, and outbound visitors • Average internal tourism expenditure per visitor (total/inbound/domestic) • The number of inbound visitors relative to total internal visitors • Tourism Direct GDP • share of large vs. small and medium-sized enterprises (SMEs) and the share of resident-owned tourism establishments • Total employment: Measured by the number of jobs, employed persons, or full-time equivalents (FTEs) in tourism industries • Employed persons in tourism industries as a percentage of working-age population. • Visitor satisfaction From ETIS if not listed above: • Length of Stay: Average length of stay of tourists (nights) • Occupancy rate in commercial accommodation per month and the average for the year • Percentage of locally produced food, drinks, goods, and services sourced by the destination's tourism enterprises Other indicators listed under Prosperity for all
------------------------------	---	--	--	--



Ensuring a social foundation	Ensure that no one is left falling short on life's essentials, respect international human rights obligations, to secure the well-being of present and future generations	All people must have access to life's essentials — clean water, safe mobility, cultural heritage, and economic opportunities — through tourism systems that uphold human rights, equity, and ecological integrity. The sector must be inclusive, participatory, and designed to secure the well-being of present and future generations while ensuring thriving, resilient ecosystems.	☐ Access to food and nutrition ☐ Access to health ☐ Access to knowledge and quality education ☐ Provision of decent work, salary, and employment ☐ Water security ☐ Access to reliable energy ☐ Access to transport and digital connectivity ☐ Access to adequate housing and shelter ☐ Gender and social equality ☐ Reduction to discrimination ☐ Social cohesion and trust ☐ Political freedom and civil rights ☐ Peace and justice ☐ Freedom to exercise spirituality	From SF-MST: - Number and % of people by education level From GSTC if not listed above: - Water risk - Water used per tourist/night per source - Perception of residents on livelihoods, including land and aquatic resource use, rights-of-way, transport and housing, food provision, healthcare, preservation of sacred sites, housing affordability and cost of living - Number and % of local employment From GDS if not listed above: From ETIS if not listed above: : Percentage of visitors using local/soft mobility/public transport services to get around the destination Other indicators listed under Prosperity for all and Economic and social transformation
-------------------------------------	--	--	---	---