



Nature positive for business

Developing a common approach

Stacey Baggaley, Mark Johnston, Julie Dimitrijevic, Camille Le Guen, Pippa Howard, Leo Murphy, Hollie Booth and Malcolm Starkey



INTERNATIONAL UNION FOR CONSERVATION OF NATURE



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Impact Mitigation and Ecological Compensation (IMEC) is a thematic group of the IUCN Commission on Ecosystem Management (CEM). IMEC aims to support ongoing improvement towards best practice in the application of the mitigation hierarchy. It works to provide guidance on linking mitigation (including avoidance) and compensation efforts to global and jurisdiction-level biodiversity targets, and to related environmental and social science-based targets, with due consideration for indigenous peoples and other stewards of nature.

This thematic group builds upon the legacy of programs that have played a key role in developing best practice in the mitigation hierarchy, most notably the Business and Biodiversity Offsets Programme (BBOP) which operated from 2004 to 2018. It also builds upon the collaborations developed through the Science for Nature and People Partnership (SNAPP) Compensatory Conservation working group (2016–2019).

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EXECUTIVE SUMMARY

Key messages:

- Nature positive requires a transformation in how our global economy operates by embedding the value of nature within institutions and systems (including business) to bend the curve of nature loss by 2050.
- Nature positive cannot be achieved unless business outcomes contribute towards the global goal for nature - collective action is critical – governments, businesses, communities, Indigenous People, and civil society need to work together.
- A nature positive future needs to tackle the climate and biodiversity crises in tandem, which may include the use of nature-based solutions while ensuring a socially equitable and just transition.
- Nature positive frameworks for business need to create accountability, allow for quantified measurement of progress, and deliver transparent disclosures on both progress and barriers.
- Nature positive is not a replacement to the mitigation hierarchy but builds upon it by expanding into the supply and value chains and across business portfolios, with a strong focus on impact avoidance and minimisation measures.

What is nature positive?

Nature (covering the water, biodiversity, soil/land, and air/climate realms) continues to decline with significant negative impacts on society. This is fuelled by the way we structure our economies and societies towards the unsustainable extraction and production, use and consumption of finite, natural resources. Urgent and transformative change across economic, social, political, and environmental systems is needed to ensure that nature is conserved, restored, and used sustainably.

At its core, nature positive is a global societal goal to halt and reverse the loss of nature, so that the global state of nature is improved for the benefit of people and the planet. Achieving this will require action by governments, businesses, and financial institutions, but **what does nature positive mean in practice for business?**

What is the role of business?

Businesses need to understand their impacts and dependencies on nature, manage their nature-related risks and embed the value of nature into their decision making to identify and implement opportunities that contribute towards the nature positive global goal. Achieving nature positive requires collective action across sectors, value chains and landscapes. While the most ambitious actions by single companies cannot deliver nature positive if implemented in isolation, individual businesses can and should start taking action across their operations and value chains to contribute to this international goal.

Defining nature positive for business

If adopting a nature positive goal or target, all businesses need to consider adopting the following ten core principles. These principles are fundamental to enabling the needed transformation. These key principles can be used to shape actions for businesses to contribute to the nature positive global goal:

1. Nature as a whole

Adopt targets which capture all realms of nature upon which the business impacts and depends, balancing trade-offs to ensure that nature benefits.

2. Avoid and mitigate

Apply the mitigation hierarchy and focus on impact avoidance and minimisation measures, and work to achieving a net gain for all elements of nature negatively impacted by operational activities and material impacts in the value chains.

3. Holistic actions

Extend actions to encompass landscape-level thinking, up- and down- stream impacts and dependencies; and include sector-wide efforts to 'transform' and drive systemic change.

4. Aligned with global goals

Apply measurable, science-based targets that are consistent with global goals (e.g., the Kunming-Montreal Global Biodiversity Framework and Sustainable Development Goals).

5. Mainstreaming

Integrate nature and the importance of biodiversity into the decision-making processes of the business, from board room down, into the operations, risk and financial decision making, and into the value chains.

6. Collaborative

Identify and engage with stakeholders within landscapes, sectors and value chains that will enable and support nature positive outcomes.

7. Adaptive

Apply effective monitoring of the state and pressure on nature across landscapes and value chains with a clear process for triggering adaptive management responses.

8. Transparent

Introduce commitments and targets that are externally communicated and backed up by credible, clear, and replicable approaches to measurement.

9. Just

Deliver safeguards and activities that respect the important role, contributions, rights and livelihoods of Indigenous Peoples and local communities as custodians of biodiversity and partners in the conservation, restoration, and sustainable use.

10. Measurable

Adopt clear and demonstrable measurement and accounting of losses and gains, for operational level commitments (e.g., net gain or net positive impact) and within the value chain.

Fundamentally, nature positive represents a systemic and transformative shift rather than 're-shaping' of current practices. However, it is recognised that businesses will need to work towards contribution towards nature positive outcomes in steps, depending on the sector and type of the business. Utilising prioritisation approaches can enable businesses to identify areas where they can have a material and meaningful contribution from the outset as systemic and transformative change is adopted through the business.

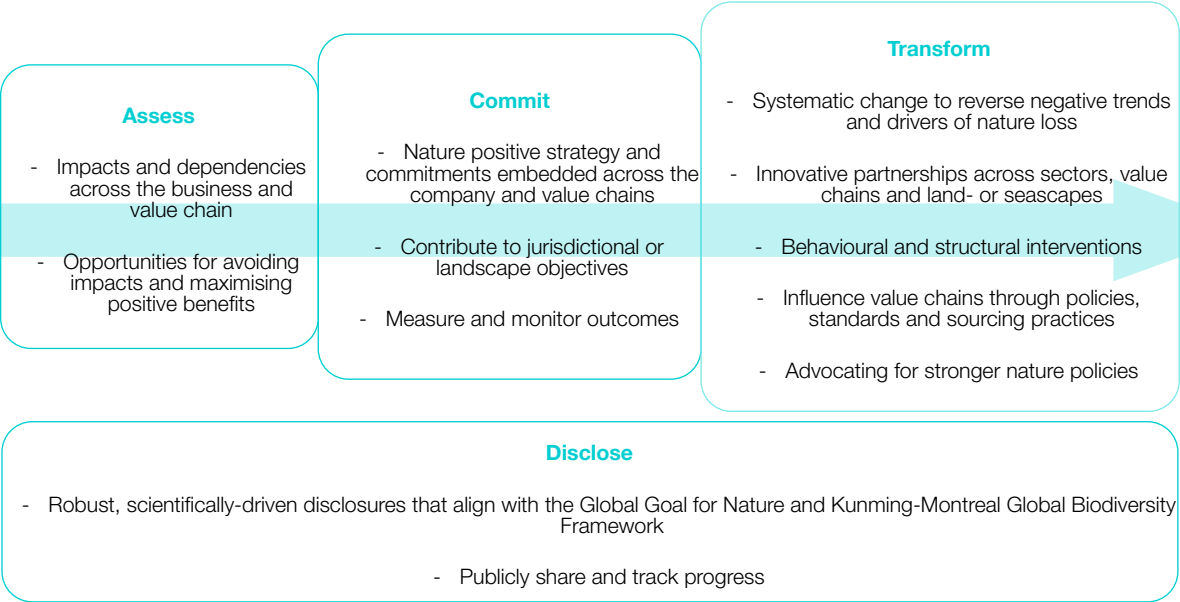
Business alignment with nature positive

A global goal to halt and reverse the loss of nature

Core principles:



Business action to:



Working across:

- Sites/operations/products
- Corporate strategies & business models
- Value Chains
- Land- & seascapes
- Regions and nations

Conceptual framework of the nature positive approaches for businesses. Source: Prepared by the authors.



Aerial view of the forest on a shore of a beautiful harbor. Auckland, New Zealand.

Photo: ©Dmitri/Adobe Stock

PURPOSE

The purpose of this Impact Mitigation and Ecological Compensation Thematic Group (IMEC) technical paper is to contribute towards and support businesses in developing approaches that may contribute to nature positive outcomes – to better understand, inform and help clarify what nature positive means for businesses.

The principles, definitions and recommended actions detailed in this IMEC technical paper may be used in decision making by financial institutions, businesses, governments, and by civil society in developing specific guidelines, policies, or plans in relation to contributions towards a global goal for nature¹ and nature positive approaches. Specifically, the objectives of this IMEC technical paper are:

- To help provide clarity for businesses aiming to align with the nature positive global goal and the 2030 mission of the Kunming-Montreal Global Biodiversity Framework².
- To provide an expression of common ground, alignment, understanding and potential differences in the many meanings and interpretations of nature positive, to inform practical application and genuine delivery towards nature positive outcomes.
- To reduce the doubts and avoid inconsistencies in the delivery of nature positive by different sectors and stakeholders.

This IMEC technical paper on nature positive informs and complements the *IUCN (2023). Measuring Nature Positive, setting and implementing verified, robust targets for species and ecosystems* and may be used to inform the proposed IPBES Methodological assessment of the impact and dependence of business on biodiversity and nature's contributions to people.

This IMEC technical paper does not include or represent an accounting framework against which businesses can map or score progress towards nature positive, and this paper only provides general reference to potential metrics and other initiatives (e.g., TNFD; SBTN; BBOP et al. and many other national biodiversity accounting protocols or calculators).

This IMEC technical paper is a summary of the outcomes from three dedicated workshops, technical discussions, and a review of relevant technical scientific papers by the IMEC Nature Positive working group. It is not the intent of this IMEC technical paper to act as practical step-by-step guidance for businesses on nature positive, but help understand the concept, potential implications and principles which underpin business action on nature positive.

1 Global goal for nature hereby defined as halting and reversing the loss of nature by 2030 (from a 2020 baseline) and achieving full recovery by 2050.
2 To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet by conserving and sustainably using biodiversity and ensuring the fair and equitable sharing of benefits from the use of genetic resources, while providing the necessary means of implementation.

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ACRONYMS

BBOP	Business and Biodiversity Offsetting Programme
BNG	Biodiversity Net Gain
CBD	Convention on Biological Diversity
CSBI	Cross-Sector Biodiversity Initiative
ENCORE	Exploring Natural Capital Opportunities, Risks and Exposure
ESJ	Earth System Justice
FPIC	Free, Prior, And Informed Consent
IBAT	Integrated Biodiversity Assessment Tool
IFC	International Finance Corporation
IMEC	Impact Mitigation and Ecological Compensation Thematic Group
IP and LCs	Indigenous Peoples and Local Communities
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
KMGBF	Kunming-Montreal Global Biodiversity Framework
LEAP	Locate, Evaluate, Assess and Prepare
NbS	Nature-based Solutions
NBSAPs	National Biodiversity Strategies and Action Plans
NNL	No Net Loss
NPI	Net Positive Impact
SBTN	Science Based Targets Network
SBTs	Science-Based Targets
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
STAR	Species Threat Abatement and Recovery
TNFD	Taskforce for Nature-related Financial Disclosures
UNEA	United Nations Environment Assembly



Alaska whale watching boat excursion.
Inside passage mountain range
landscape luxury travel cruise concept.

Photo: ©Maridav/Adobe Stock

1. BACKGROUND

Nature continues to decline with potentially devastating impacts on society, fuelled by the way we structure our economies and societies towards unsustainable extraction and production, use and consumption of the natural resources we depend upon. With increasing recognition of the need for whole-of-society approaches, efforts towards a nature positive, net-zero and socially equitable world are gathering in pace.

The fundamental concept of a global goal, termed nature positive, stems from the urgent need to halt and reverse the loss of nature; to conserve, regenerate and restore; and to set nature on a path to full recovery by 2050.

Business plays a significant role in contributing towards this global goal. Nature provides the vital goods and services that our societies depend on and underpin successful business function. The World Economic Forum (WEF) on the Nature Risk Rising report estimated that over 50% of global GDP is moderately or highly dependent on nature with all businesses having direct dependencies on nature or “hidden dependencies” across their value chains (WEF, 2020).

Despite this strong societal dependence on nature, human activities continue to place stress on natural systems and impact on their ability to provide essential functions and services into the long term. The IPBES global assessment (2019) identifies five direct drivers of change leading to global biodiversity and ecosystem loss: land/sea use change, direct exploitation, climate change, pollution, and invasive species. These direct drivers are exacerbated by societal values, behaviours, and systems. Businesses, either directly or through their supply chains, contribute to these impacts on nature, through exploitation of natural resources, the conversion of land and sea, and pollution that can have significant consequences on natural ecosystems and species. Achieving this nature positive global goal will not be easy. We need to achieve transformational change that reorients the way we model our economies, sectors, and businesses; that addresses the underlying drivers of nature decline; and sets us towards a pathway for full recovery of nature by 2050.

1.1. GLOBAL FRAMEWORKS

There is increasing convergence towards a global goal for nature. In 2020 a wide-ranging group of NGOs and business organisations put forward a global goal for nature (Figure 1) as a clear call to action for more ambition and an overarching goal that could be integrated with other climate and development goals. The Global Goal for Nature (Locke et al., 2020) outlines three temporal objectives, set against a baseline of 2020, to:

1. Achieve zero net loss of nature by 2020.
2. Be nature net-positive by 2030.
3. Have a full recovery of nature by 2050.

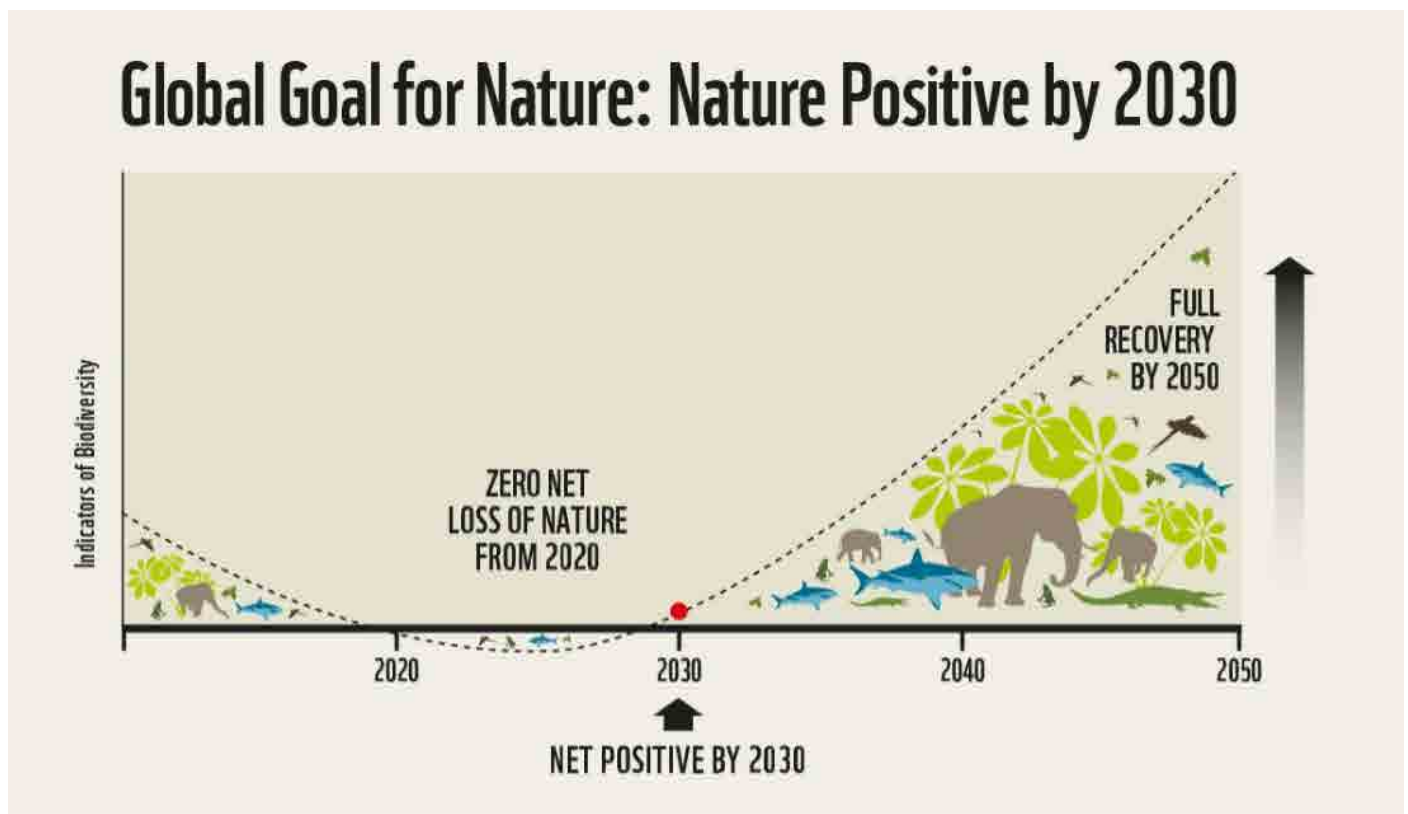


Figure 1. Trajectory towards nature positive by 2030. Source: www.naturepositive.org (n.d.). Retrieved July 19, 2023.

The impetus for nature positive recognises the need to bend the curve of nature decline, through ambitious and integrated efforts, to prevent further losses and place ecosystems and biodiversity on a pathway to recovery (Leclere et al., 2020).

In late 2022, Governments convened to finalise the Kunming-Montreal package of decisions, setting out an ambitious plan to transform society's relationship with nature and ensure that by 2050 the vision of living in harmony with nature is fulfilled. Taken as a whole, the Kunming-Montreal Global Biodiversity Framework (KMGBF) aims to catalyse and enable urgent and transformative action with the whole of society to halt and reverse biodiversity loss and allow for the recovery of nature for the benefit of people and the planet.

Achievement of the 2050 goals and 2030 action targets laid out in the KMGBF, will necessitate accelerated action from governments, business, financial institutions, Indigenous Peoples and local communities, and civil society to tackle the underlying drivers and pressures contributing to biodiversity decline. The theory of change laid out by the Convention on Biological Diversity (CBD) envisages transformations in economic, social, and financial models to address negative trends and stabilise biodiversity loss by 2030 and allow for the recovery of natural ecosystems with net improvements by 2050 to achieve the Convention's vision of "living in harmony with nature".

The term "nature positive" was not included within the final text of the Kunming-Montreal Global Biodiversity Framework. However, there is alignment between the language and terminology used in definitions of nature positive and the mission and vision of the KMGBF. The 2030 mission speaks to the need to "halt and reverse biodiversity loss to put nature on a path to recovery". In addition, the KMGBF goals and many of the nature positive definitions (as highlighted in section 2.1) include similar language and intent.

The goals and targets within the KMGBF seek to address pressures on biodiversity, increase efforts towards protection, conservation, and restoration, and ensure sustainable use of biodiversity for the benefit of people and the planet. This increase in biodiversity globally is fundamental to achievement of a global goal for nature positive.

In implementing these efforts to halt and reverse loss to put nature on path to recovery, our economies and societies should be seen as embedded parts of the biosphere, and not external to it (Dasgupta, 2021). Achievement of the Kunming-Montreal Global Biodiversity Framework and the Global Goal for Nature will provide a fundamental contribution to the achievement of the 2030 Agenda for Sustainable Development.

A nature positive goal recognises that the Sustainable Development Goals can only be realised if the biosphere related goals are met (Figure 2). Recognition of these interconnections and synergies between global goals will enable coordinated action towards a nature positive, net-zero and equitable world.

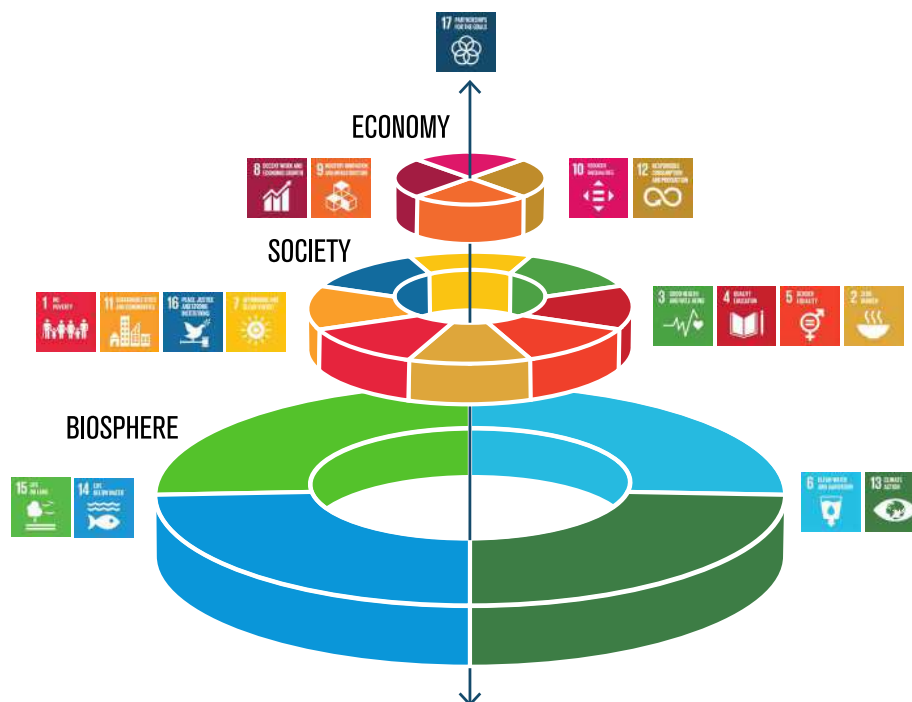


Figure 2. Illustration on the importance of the core SDG targets for nature which underpin society and economies. Credit: Azote for Stockholm Resilience Centre, Stockholm University CC BY-ND 3.0.

1.2. THE ROLE OF BUSINESS

In addition to the explicit call to action within the KMGBF (e.g., Target 15), there is increasing expectation for businesses to be setting targets and disclosing against voluntary frameworks such as the Science Based Targets Network (SBTN) and the Taskforce for Nature-related Financial Disclosures (TNFD).

An increasing number of businesses are adopting existing best practices, such as applying the mitigation hierarchy (Cross-Sector Biodiversity Initiative (CSBI), 2015) with the aim to achieve no net loss (NNL), biodiversity net gain (BNG) or a net positive impact (NPI) on biodiversity as they focus on direct impacts at the site level. However, these targets and practices alone will not lead to the transformative changes needed to deliver nature positive change, which requires a transformation across value and supply chains.

Traditionally NNL, BNG and NPI are tied to project or operational impacts and do not address accumulated or historic losses. There are limitations and practical challenges (such as determining appropriate baselines, addressing cumulative or wider landscape impacts, and addressing impacts that occur within the value chain) that are not addressed through existing NNL, BNG and NPI practices.

With the recognition of the need to move beyond traditional impact management approaches, the concept of nature positive is gaining significant momentum with a growing number of conservation, government and business actors proposing definitions, approaches, and commitments (See Box 1)^{1,2,3,4,5,6}.

1 Policy Paper: G7 2030 Nature Compact (2021) <https://www.gov.uk/government/publications/g7-2030-nature-compact>
 2 Teck nature positive commitment. Accessed on 5 April 2023 from <https://www.teck.com/sustainability/sustainability-topics/nature-positive/>
 3 Unilever protect and regenerate nature. Accessed on 5 April 2023 from <https://www.unilever.com/planet-and-society/protect-and-regenerate-nature/>
 4 Holcim commitments to nature. Accessed on 5 April 2023 from <https://www.holcim.com/sustainability/nature>
 5 HM Treasury (2021) Government commits to 'nature positive' future in response to Dasgupta review. <https://www.gov.uk/government/news/government-commits-to-nature-positive-future-in-response-to-dasgupta-review>
 6 Neste biodiversity. Accessed on 5 April 2023 from <https://www.neste.com/sustainability/biodiversity#dfa40e67>

BOX 1. COMMITMENTS REFERENCING Nature positive ARE GROWING IN NUMBER.

For example:

- **G7 2030 Nature Compact:** Global system-wide change is required: our world must not only become net zero, but also nature positive, for the benefit of both people and the planet, with a focus on promoting sustainable and inclusive development.
- **Teck:** Has set a goal to become a nature positive mining company by 2030. This builds on existing commitments to biodiversity land protection.
- **Unilever:** Taking action in working towards a nature positive future, where forests are protected and restored, agricultural systems are regenerated, water systems are preserved, and smallholder farmers are empowered.
- **Holcim:** Made a commitment to delivering a nature positive future The nature strategy sets out measurable 2030 targets to restore and preserve biodiversity and water and bringing more nature into cities.
- **UK government:** The government commits to: (1) delivering a 'nature positive' future, in which we leave the environment in a better state than we found it, and reverse biodiversity loss globally by 2030; and (2) ensuring economic and financial decision-making, and the systems and institutions that underpin it, supports the delivery of that nature positive future.
- **Neste:** Has a position to drive a positive impact on biodiversity and achieve a nature positive value chain by 2040. Nature positive aims at halting and reversing nature loss, positive impacts outweighing the adverse impacts.

While it is encouraging to see the number of organisations engaging with nature positive, this also carries a risk of confusion in terms, dilution of the ambition of the nature positive goal and mixed expectations of how nature positive can be delivered in practice. There is a need for clarity and consensus on what nature positive is and how businesses can align their contribution to ensure meaningful action towards global goals. This paper aims to bring together the thinking on nature positive to better understand, inform, clarify, and define what nature positive means for businesses.



Mangrove forest and coral reefs in split shot, Gam Island Raja Ampat Indonesia.

Photo: ©anemone/Adobe Stock

2. DEFINING NATURE POSITIVE

2.1. WHAT IS NATURE POSITIVE?

Nature positive is a global societal goal to halt and reverse the loss of nature across all four realms (water, biodiversity, air/climate, and soil/land), for the benefit of human and planetary well-being (Figure 3). Halting and reversing is about avoiding and minimising impacts, and in addition, restoring and regenerating nature.

There is growing consensus towards the Nature Positive Initiative's definition of nature positive, driven by 27 of the world's largest nature conservation organisation, institutes, and coalitions.

“Nature positive by 2030’ refers to halting and reversing biodiversity loss by 2030 from a 2020 baseline, through measurable gains in the health, abundance, diversity and resilience of species, ecosystems and nature processes” The Nature Positive Initiative (2023)

And the closely aligned definition of the EU's Business and Biodiversity Platform.

“The idea is to halt and reverse nature loss measured from a baseline of 2020 ('zero net loss from 2020'), through increasing the health, abundance, diversity and resilience of species, populations, and ecosystems so that by 2030 nature is visibly and measurably on the path of recovery ('net positive'). By 2050, nature must recover so that thriving ecosystems and nature-based solutions continue to support future generations, the diversity of life and play a critical role in halting runaway climate change.” (EU B@B Platform).

Other definitions¹ were also considered by the IMEC Nature Positive working group in the formulation of this paper with a view to understanding the core and common components of nature positive to drive further clarity on the role businesses could play in this global goal.

1 “A Nature Positive future means that we, as a global society, rapidly halt and reverse the loss of nature measured from its current status, reducing future negative impacts alongside restoring and renewing nature, to put both living and non-living nature measurably on a path to fully recover by 2050.” IUCN (2022)
“A Nature Positive future means that we, as a global society, halt and reverse the loss of nature measured from its current status, and thereby put nature on a path to demonstrable recovery.” IUCN (2022)

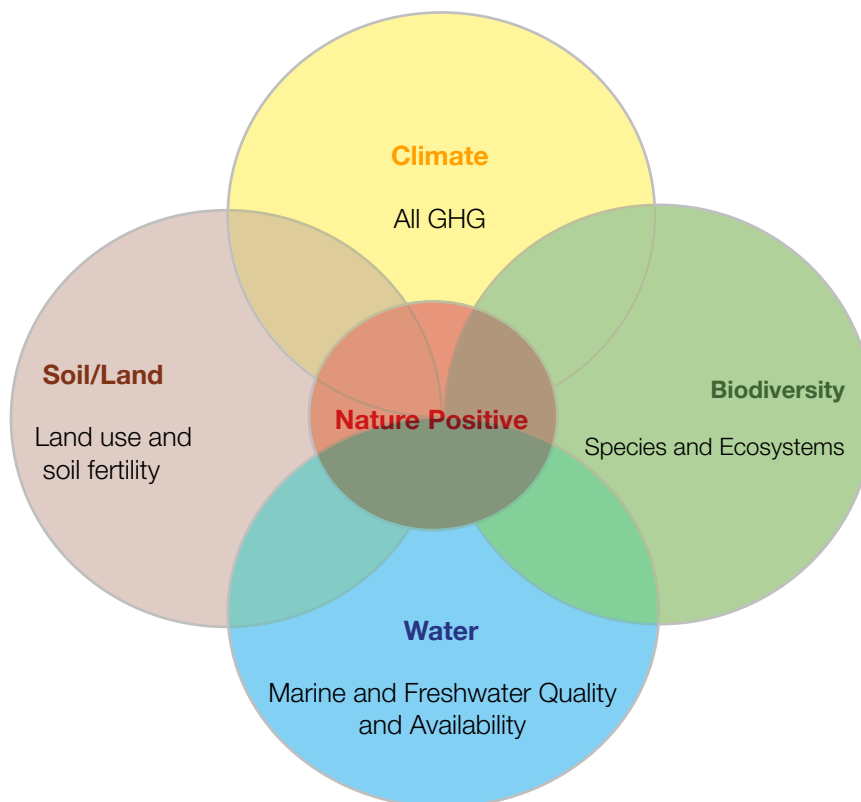


Figure 3. Schematic representation of the natural dimensions or realms of a nature positive goal which underpin and support society and economies (Figure 2). Globally each dimension is equal in their importance if nature positive is to be achieved, but trade-offs may be necessary at a local or regional scale depending upon local priority and economic and societal demands. Source: Prepared by the authors.

It is recognised that these definitions may not be explicit in covering all aspects of a nature positive global goal, and while certain actions may contribute towards ‘biodiversity outcomes’ this may not necessarily result in ‘nature positive’ outcomes if the other realms remain adversely impacted. Achievement of nature positive requires due consideration of accumulated losses, ecological equivalency, natural capital asset stewardship, shifting baselines or trade-offs (Houdet & Teren, 2022).

Nature positive is of course not just about reversing a loss of nature. It requires a transformative change in the way society, businesses and governments manage and interface with nature. It also means that our measures of wealth should be natural capital inclusive, considering the depreciation of nature and nature’s stocks (Dasgupta, 2021). There are key principles and implications of nature positive which underpin the approaches businesses need to adopt to contribute towards a global goal for nature. A nature positive goal implies:

- Reversing the loss and degradation of nature – including both the living components (e.g., species, populations, and ecosystems, including soil) and non-living components (e.g., water and air) of nature. This requires better, and wider implementation of the mitigation hierarchy with not only a stronger emphasis on avoidance and reduction measures to halt the loss but also more regeneration/restoration/rewilding initiatives to bend the curve of nature loss and improve the state of nature.
- Considering all realms of nature (water, biodiversity, air/climate, and soil/land). Compensation measures should always aim to be like for like, whereby the negative impacts on one realm cannot be compensated by positive actions on different realms.
- A baseline against which nature recovery can be measured with the use of appropriate metrics, targets, and accounting frameworks.

-
- Going beyond just ensuring that any unavoidable negative impacts are more than fully balanced by positive outcomes, by, for example, restoring or rehabilitating ecosystems beyond that of the pre-impact baseline condition.
 - Addressing the imbalance of our demands on nature and nature's ability to supply to this demand (in reference to planetary boundaries and ecological limits). This requires a fundamental change of our current institutions to ensure that nature is part of economic decisions.
 - Addressing the direct, indirect, and cumulative impacts on nature, including impacts through the value chain.
 - Taking actions that are just and inclusive of the rights of Indigenous People and local communities.

Nature positive: a movement, a goal, or an approach? Nature positive is an outcome goal in the broad sense. In contributing to nature positive, businesses need to adopt a whole value chain approach (potentially at varying levels of ambition and action depending on the scale or magnitude of the impacts on nature), set a goal or target and embed nature into the way they operate. It requires a new operating model based on regeneration, resilience, and circularity.

Can a business be nature positive? Businesses can take actions or develop approaches which contribute towards the nature positive global goal. However, there is a debate on whether an individual business can or cannot be nature positive. Some argue that in theory, businesses can be nature positive as long as they contribute more to regenerating and enhancing nature than to damaging it across their operations and value chains (i.e., they give more to nature than what they take), but that in practice, some businesses cannot be nature positive, especially in specific sectors (e.g., extractives). Even such businesses can instead contribute towards the nature positive global goal by rigorously applying the mitigation hierarchy to address their impacts, to avoid and minimise their impacts to the greatest extent possible, by embedding nature considerations into organisational decisions, and by taking action in line with national or global priorities.

In analogy with the 1.5°C threshold for global warming, a business cannot reach the 1.5°C target on its own. However, it can take actions to be carbon neutral or net-zero, which contributes to and is aligned with limiting global warming to 1.5°C. Likewise, a business can achieve outcomes aligned with a global nature positive goal.

It is not the intent of this IMEC Technical Paper to resolve whether a business can be nature positive or not, but it is **fundamental to make sure that the lack of clarity over whether a business can be nature positive should not deter businesses from taking commitments and actions to align with the global goal.** Indeed, the fact that many enterprise types may be unable to achieve nature positive and cannot claim to have achieved nature positive status should not discourage a focus on using nature positive frameworks for improving performance and reducing impact by committing to nature positive, ambitious targets.

When contributing to nature positive, businesses need to consider:

- Having a measurable and relevant contribution to positive outcomes for nature in landscapes and ecosystems. This requires a good understanding of the scale of the impacts and dependencies.
- Being able to demonstrate that it is responsible for achieving nature positive in parts of the value chain where it has control and influencing other areas of the value chain where feasible (notably, for example, for high-impact commodities as identified by the SBTN).

2.2. WHOLE-OF-SOCIETY

The whole of society needs to be engaged in the necessary transformations to be able to achieve the nature positive global goal, however this should not limit or restrict individual businesses from taking action. Businesses provide the goods and services that people need and in meeting this demand businesses need to respond in ways which address social, economic, and environmental challenges and expectations – none of these can be done in isolation and the whole of government, businesses and society need work collectively while respecting the contribution of Indigenous Peoples and local communities (IP&LCs), just transition, different value systems, and national circumstances, priorities, and capabilities. The whole-of-society approach underpins a nature positive global goal and is articulated in Section C of the Kunming-Montreal Global Biodiversity Framework.

Incorporating all aspects of whole-of-society is a key aspect of nature positive, and this means ensuring safe and socially just processes and outcomes. A transformational approach to nature positive (Section 4.3) provides businesses with opportunities to adapt their business models to enhance procedural and distributive justice while also delivering outcomes for nature with the inclusivity of the views, knowledge, rights, and free, prior, and informed consent (FPIC) of IP&LCs (Bull et al., 2019).

The recently proposed ‘earth system justice’ (ESJ) offers one possible framework for operationalising socially-just transformations, which articulates just ends (which minimise significant harm to humans from environmental change while ensuring access to needed resources for all) and just means (which involve reallocation of resources, responsibilities, and risks (Rammelt et al., 2022).

2.3. NATURE POSITIVE PRINCIPLES FOR BUSINESSES

Businesses can be steered by the following ten core principles. These principles are fundamental to enabling the transformations needed to be consistent with or contribute towards a nature positive goal.

1. Nature as a whole

Nature is a complex and interconnected system incorporating biotic and abiotic elements across land, freshwater, oceans, and the atmosphere (including species, ecosystems, air, water, and soils). To achieve full recovery of nature by 2050, businesses should adopt holistic targets capturing all elements of nature upon which the business impacts and depends. This may require the balancing of trade-offs between different elements of nature to ensure that each of these benefits, as required, rather than the outcome for a single component being maximised.

2. Avoid and mitigate

The mitigation hierarchy can be applied across all operational and value chain activities, whereby the focus must be on avoidance and minimisation of impacts (e.g., avoiding activities in sensitive areas or avoiding the use of high impact commodities in the value chain). The overall aim should be to use the mitigation hierarchy to achieve at least>NNL, or ideally a net positive impact/net gain for all elements of nature negatively impacted by operational activities and material impacts in the value chain - the application of the mitigation hierarchy fundamentally underpins delivery towards nature positive, while recognising that nature positive builds upon and goes beyond that of the mitigation hierarchy and beyond that of site-based no net loss targets.

3. Holistic actions

Nature positive approaches for businesses must be additional to ‘business as usual’ and build upon, and not replace, existing best practices or requirements (e.g., application of the mitigation hierarchy). Businesses need to understand and manage both the impacts and dependencies upon nature that occur throughout their entire sphere of influence, to encompass up- and downstream impacts within supply chains (vertical scope); and include sector-wide efforts to ‘transform’ and drive systemic change (horizontal scope) across landscapes/seascapes. For many companies this will be particularly relevant for their upstream supply chains where the interface with nature is more direct, and the impacts may be largest and may contribute towards jurisdictional plans and strategic environmental assessments.

4. Aligned with global goals

Companies should be committed in their efforts to support nature positive, setting out measurable, science-based targets incorporating local and traditional knowledge that contribute towards global goals such as the Kunming-Montreal Global Biodiversity Framework and in line with planetary boundaries. To halt and reverse nature loss, these targets should focus on the preventing new impacts and include provision for absolute gains against a static baseline rather than relative targets against a backdrop of continued decline – this also underpins Principle 1 and 2, whereby delivering Principle 1 and 2 may of be viable if aligned with global goals and absolute gains. Proportional positive contributions to protection and restoration of nature, which go beyond the value chain and towards counterbalancing historic, indirect, and diffuse impacts, will also be needed to ensure that the overall state of nature is improving.

5. Mainstreaming

Delivering nature positive requires transformative changes in the way that companies incorporate their interaction with nature into decision-making. While traditionally the management of nature impacts have been the remit of environment departments, to achieve real change nature needs to be integrated into the decision-making processes of all elements of the business from the board room down. This shift will enable companies to prioritise the avoidance of new and abatement of existing impacts rather than defaulting to compensatory actions. It also supports the effective resourcing and capacity building across the organisation to identify, design, implement and monitor actions.

To generate systemic change, companies should also become vocal advocates for nature at senior levels, including communicating clearly on nature commitments and supporting nature positive policies at international, national and sector levels. As well as the opportunity for businesses to include nature positive commitments, and related key performance indicators, in management performance reviews, include senior management responsibility for nature, as well as integrating nature positive clauses into supplier contracts.

6. Collaborative

The nature positive goal is not achievable by a single business acting alone. Businesses should identify and engage stakeholders within their landscapes, sectors and value chains that will enable and support positive outcomes. This is key within landscapes to ensure that positive efforts by companies are not compromised by other actors, but instead work in synergy to improve outcomes for nature. Businesses should ensure representation from affected Indigenous Peoples and local communities to ensure that solutions designed within landscapes draw on local knowledge and safeguard the role of local stakeholders as custodians of their lands. Within the sector, companies should collaborate across their value chain to develop innovative approaches that improve outcomes for nature, be these new production methods that integrate greater circularity and reduced resource demands or nature-based solutions (NbS) to replace grey infrastructure and deliver biodiversity benefits.

7. Adaptive

Nature is a complex and dynamic system in which outcomes are dependent on a range of localised and cumulative factors. As such companies should manage their actions that contribute to nature positive adaptively, scaling up actions where successful and adapting actions where ineffective. This will require regular and effective measurement and monitoring of the state of and pressure on nature across the landscapes and value chains in which the company operates and a clear process for triggering adaptive management responses.

8. Transparent

Nature positive aligned commitments should be operationalised through SMART targets, with clear sets of actions to be implemented, costed, and sequenced, and an analysis of how actions will add up to deliver positive outcomes. These commitments and targets should also be externally communicated, with clear articulation of their scope and the baseline against which they will be assessed. The approach to measurement of targets should be credible, clear, and replicable and progress towards these targets should be disclosed at regular intervals.

9. Just

Nature positive must be delivered in a manner that safeguards and enhances the rights and livelihoods of the communities which depend on nature and its contribution to people, especially those under-represented in traditional decision-making processes. In determining nature targets and actions across value chains and landscape, consideration should be given to drivers of inequality to ensure that actions do not have an adverse impact on the rights and resiliency of Indigenous Peoples and local communities. Nature positive should support procedural and distributive justice including ensuring free, prior, and informed consent (FPIC) of Indigenous Peoples and local communities (IP&LCs) as well as minimise significant harm to people from environmental change while ensuring access to needed resources for all.

10. Measurable

Clear, transparent, and demonstrable measurement and accounting of losses and gains of nature should underpin business actions to contribute towards nature positive. Business will need to be adaptive to emerging measurement approaches, metrics, and frameworks, particularly those relating to measurement of impacts, dependencies and value chains. Keeping such measurement transparent and justified and the sharing of data, are part of the process. Where appropriate, businesses may measure and disclose progress and contributions toward the indicators used in the Monitoring Framework for the Kunming-Montreal Global Biodiversity¹, which also aligns with Principle 4 and 8.

In considering their approach to applying these principles, businesses can undertake a gap analysis and prioritisation approach to understand those principles that are most relevant to their organisation. These key principles can be used iteratively to shape actions for businesses looking to embark on a journey to contribute to the nature positive global goal. Over time, all principles should be adopted and implemented.

1 Monitoring framework for the Kunming-Montreal Global Biodiversity Framework <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-05-en.pdf>



An aerial view of a winding Clearwater Creek in Northwest Ontario, Canada.

Photo: ©Gordon Pusnik/Adobe Stock

3. BUSINESS CASE FOR NATURE POSITIVE

3.1. DEPENDENCIES, RISKS AND EXPECTATIONS

Fundamentally most businesses either directly or indirectly depend on nature for their operations and day to day activities (WEF, 2020) – whether this be a dependence on pollinators which are critical to producing the goods businesses sell, or a dependence on coastal ecosystems for flood defence, or natural materials used in manufacturing – businesses use and depend on nature as part of their value chain, business resilience and market capital.

The science (IPBES, 2019) shows us that nature and other global societal goals can be met provided society takes urgent and concerted efforts to halt and reverse nature loss. Likewise, the importance of land use and increased biodiversity in tackling climate change is informing corporate and government climate strategies. Land use changes are both a primary driver of biodiversity losses and contribute about a quarter of all greenhouse gas emissions; as such the protection, management and restoration of natural and managed ecosystems can make significant contributions to reducing emissions.

These and other societal challenges, such as food security, climate change, water security, human health, disaster risk, social and economic development all have a significant impact in the way businesses operate – whether now or in the future. Therefore, it is not surprising that:

- International goals and targets which specifically include business actions have become increasingly ambitious (e.g., requirement for business disclosures under Target 15 of the Kunming-Montreal Global Biodiversity Framework).
- National policies and regulations on businesses to be managing biodiversity impacts are increasing.
- Investors are increasingly asking businesses to disclose their nature-related risks (e.g., the anticipated Taskforce for Nature-related Financial Disclosure framework) and to act fully to address their impacts on nature (e.g., Nature Action 100, Finance for Biodiversity Pledge).
- Business customers and clients are expecting businesses to be managing their impacts and dependencies on nature to ensure economically viable security of supply of good and services for both people and planet.
- Society as a whole is expecting businesses to be part of the solution in addressing these global challenges

This growing demand on businesses to help deliver a nature positive outcomes also represents potential opportunities. There is early indication in the market that companies adopting a more proactive approach to nature provides a differentiation in the market and a potential competitive advantage and better resilience against market crashes (e.g., Covid19). Similarly, there is a significant growth in green investments, green finance, and green bonds as well as businesses delivering nature restoration and compensation services.

At the more operational level, the focus should remain on improving the state of nature through the direct conservation, protection, regeneration, restoration, and rehabilitation of nature, including using nature-based solutions. Alongside this, businesses can look to reduce impact drivers through the application of new technology along the full project life cycle and improved collaboration with stakeholders. Doing so can help reduce costs, decrease business risks, and develop innovative business solutions, such as:

- Using non-harmful, non-chemical processes in raw material production, extraction, and processing.
- Applying efficient mechanisation and recovery technologies to improve extraction efficiency, while being mindful of social implications of doing so.
- Reducing water usage and delivering water security.
- Reducing greenhouse gas (GHG) emissions and delivering carbon neutrality.
- Adopting circularity principles and phasing in of re-use and recycling initiatives.
- Delivering sustainable land management practices incorporating innovative restoration and rehabilitation plans in partnership with Indigenous People and local communities.
- Improved local community engagement at the site level, in the landscape and across the business sector as well as its supply chain.
- Energising the workforce of a company, which can improve staff well-being, retention, and mental health.

Businesses adopting approaches that contribute to nature positive can demonstrate to clients, critics, and markets that the company knows and can manage their risks – from a site level into value chains. Meanwhile, transparent disclosure to financiers and markets can evidence that the business understands, has characterised and is applying the management actions needed to and deliver on science-based commitments and actions.

3.2. OPPORTUNITIES AND INNOVATION

Nature positive alignment can enable a business to demonstrate that it is responsible, playing a key role in the future sustainability of the landscapes within which the business operates, and enable more sustainable outcomes in the operational context for both the business and the communities in the landscapes surrounding its activities and supply chains and showcase to consumers that they are choosing products working towards a sustainable future. Nature positive enables a better understanding of how biodiversity, people, climate, water, finance & economy are interconnected, and the actions required for all elements and realms to be healthy. This can enable:

- **Improved access to land and resources** – a reputation for strong ecosystem level management increases the likelihood of projects and operations being granted access to land by government regulators, and attracting credible joint venture partners, employees, and customers.

- **Easier access to finance** – given tightening global financial standards, businesses with a track record of delivering positive outcomes (Net Gain, Net Positive Impact) will achieve preferential access to finance mechanisms (e.g., World Bank Group, financial institutions committed to upholding the Equator Principles).
- **Establishing the license to operate** – actions leading to positive outcomes will strengthen relationships with communities that depend on nature and ecosystem services within the areas that a company operates. Positive actions and transparency in the management of impacts will grow credibility and foster trust with civil society, stakeholders, and international observers.
- **Better operational cost efficiency** – integrated management and proactive reduction of risks avoids wasteful expenditure on compliance costs, fines and legal fees and increases the opportunities to achieve positive outcomes for employees, dependent communities, the environment, and this planet on which we all depend.
- **Market differentiation** – through the creation of sustainable products that meet current and future consumer demands, and maintained market access where regulation or procurement policy exists.
- **Contributions to climate stability** – the effective mitigation of climate change is nested within improved management of the world's natural resources, NbS will be an essential mechanism for delivery with opportunities to employ NbS throughout the project life cycle for climate mitigation and other benefits.
- **Defining a business as a global leader** – setting precedent for best practice approaches that go beyond standard legal and industry compliance that others will be required to follow in an environment of ever strengthening legislation and standards – noting that voluntary business approaches alone are unlikely to deliver nature positive. Transformation will come when businesses, sectors and governments work collectively to define nature positive development approaches, otherwise the risk of falling short of nature positive outcomes for companies is high.
- **Internalising nature into business operations** – using a controlled, planned and voluntary way can allow businesses to adapt proactively rather than be reactive to future regulations.



Sunset at savannah plains.

Photo: ©Maciej Czekajewski/Adobe
Stock

4. ALIGNING BUSINESS ACTIONS WITH NATURE POSITIVE

4.1. FRAMEWORK FOR ACTIONS

For businesses to contribute to nature positive they will need to take actions that drive the transformations needed to deliver on this global goal. Building from a strong foundation of impact mitigation in pursuit of no net loss or net gain outcomes at sites and operations, nature positive enables companies to look beyond business-as-usual and risk mitigation into the wider operating environment to deliver contributions that support achievement of global goals.

Traditionally businesses have viewed nature through the lens of impact and risk at the operational, activity or product level, deploying approaches such as the mitigation hierarchy or biodiversity management plans to manage impacts. However, businesses do not function in silos. They are embedded within socio-economic systems across multiple scales (Figure 4). Nature positive requires business to take a more holistic view that encompasses the entire sphere of control and influence to achieve collective outcomes across value chains, landscapes & seascapes, sectors and in alignment with regional, national, and international ambitions

Collective action and partnerships will be essential to achieving nature positive across these wider systems. In considering their contribution to nature positive, businesses will need to continually review materiality to prioritise activities and draw on a toolbox of actions that achieve appropriate and effective outcomes for nature. These actions will need to be commensurate with their responsibility for nature and there is no one-size-fits-all approach. Businesses can be guided by an assessment of their impacts and dependencies across the whole value chain and an identification of the system change levers they can influence by demonstrating business leadership and advocating for ambitious policy at both international and national scales.

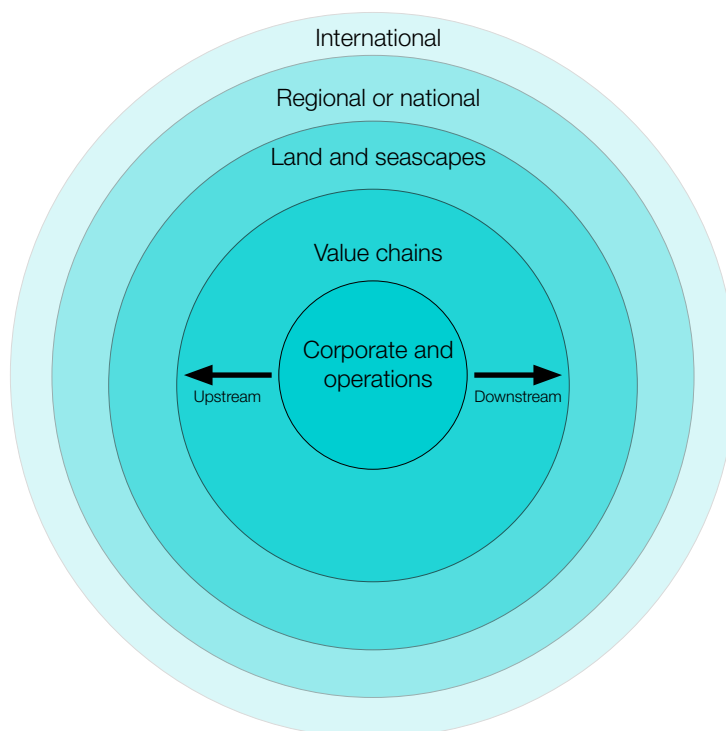


Figure 4. Business spheres of control and influence. Source: Prepared by the authors.

The high-level business actions for nature (Business for Nature, 2022), provide a framework for key actions businesses can take towards nature positive (Figure 5). This framework was developed in collaboration with leading organisations with a view to achieve alignment and build on existing guidance and initiatives (including from the Science Based Targets Network, Taskforce on Nature-related Financial Disclosures, World Business Council for Sustainable Development (WBCSD) nature positive building blocks, and Natural Capital Protocol). These steps can help business to structure their approach and guide their activities and actions.

This paper outlines considerations and potential areas of action across the assess, commit, transform and disclosure framework to guide business in developing their thinking and strategies to contribute to nature positive. This necessitates a suite of action by business, enabled by ambitious commitments and shifts in business models and purpose at the corporate level, and implemented across value chains, sites, and landscapes.

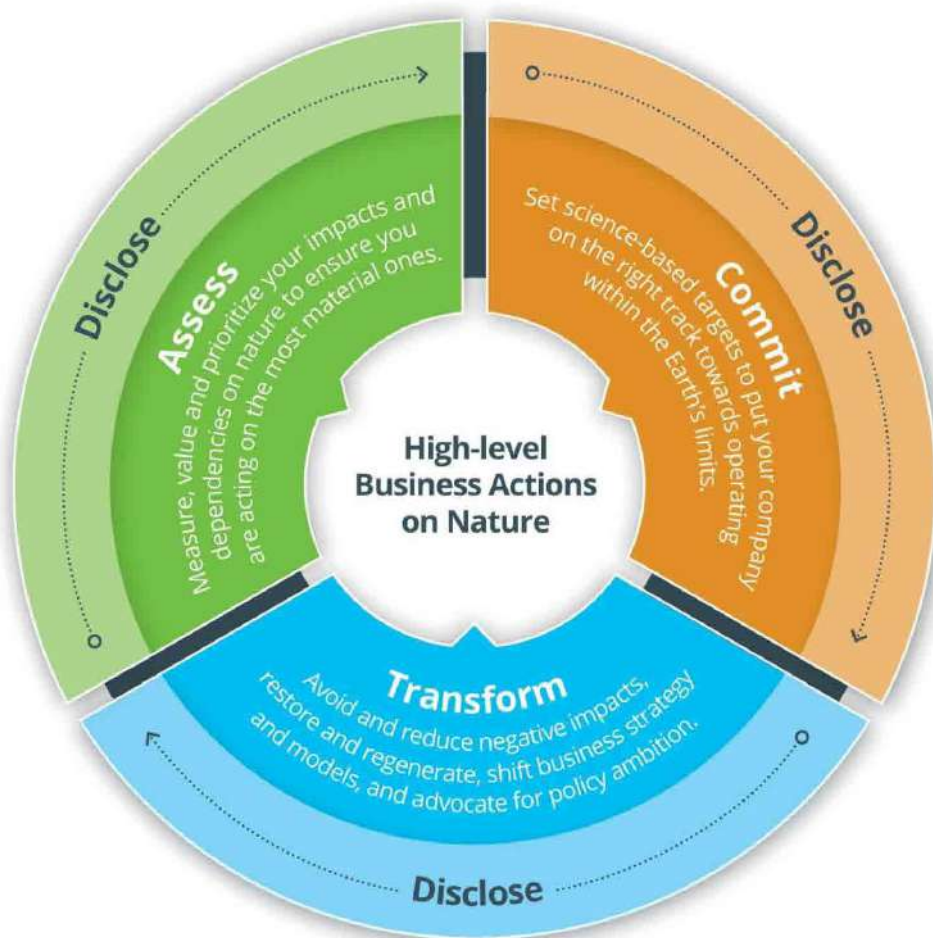


Figure 5. High-level business actions on nature framework. Source: Business for Nature, 2022.

Business alignment with nature positive

A global goal to halt and reverse the loss of nature

Core principles:



Business action to:

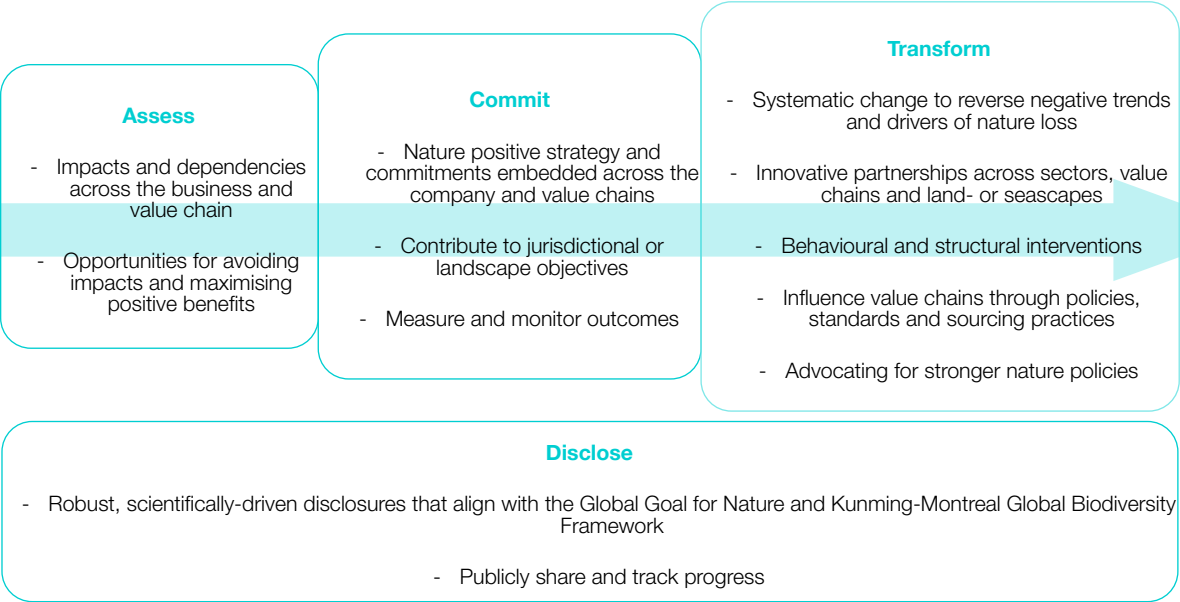


Figure 6. Conceptual framework of the nature positive approaches for businesses. Source: Prepared by the authors.

4.2. ASSESS & COMMIT

Businesses need to make commitments to deliver on their contributions to nature positive. The business-led, multi-stakeholder initiatives of the WBCSD and World Economic Forum, including Business for Nature, have raised the call to business to commit to nature positive noting that, as with the Taskforce for Nature-related Financial Disclosures (TNFD), action and efforts need to be directed both at a site level where impacts and dependencies on nature occur, and throughout the value chain.

These commitments need to be made in the context of the overall “nature footprint”, which in turn needs to be cognisant of the ecological landscapes and jurisdictional objectives or targets. For example, a company producing iron ore should:

- Avoid activities in sensitive areas and implement actions that minimise negative biodiversity impacts.
- Apply the mitigation hierarchy, including avoidance and minimisation steps as well as restoration and offsets, as necessary and appropriate, to deliver no net loss and net gain for biodiversity associated with its operational footprint.
- Take into account the application of nature-based solutions in addressing both operational and risk management objectives such as water and climate security, as well as positive corporate nature targets.
- Understand its material supply chains to ensure these are derived from nature-responsible sources.
- Link into or develop responsible chains of custody that foster a full life-cycle approach towards nature positive.
- Contribute to landscape or jurisdictional outcomes, in collaboration with other stakeholders, through additional restoration, conservation and regenerative practices.

To ensure their contribution to nature positive, a company requires commitment across a number of levels: avoiding and reducing impacts, net positive at a site level, the application of nature-based solutions, securing positive outcomes through the value chain, and contributions to landscape and jurisdictional outcomes.

Nature positive requires businesses to understand impacts and dependencies on nature and to mainstream nature positive thinking throughout business decision making. This includes all aspects of the business: from procurement to project development to day-to-day operations such as water and energy supplies, to decommissioning and closure.

4.2.1. CORPORATE LEVEL ACTIONS

At the corporate level, board-level commitment to nature positive is needed, supported by a strategy and time frame with an action plan to deliver on this commitment. This of course needs resourcing (both human and financial) to deliver, so the commitment must go hand-in-hand with a budget and senior level expertise to action this.

The key actions are to:

- Raise awareness and understanding at the board and executive levels about the importance and value of nature, and develop appropriate policies, positions or commitments that address how the company will contribute towards nature positive:
 - Define the commitment.

- Establish a target (e.g., 15% increase in nature at a site; nature positive supply chains; engage and potentially contribute towards National Biodiversity Strategies and Action Plans).
- Appoint a board member to oversee the implementation and future update of strategy.
- Undertake an assessment of the impacts and dependencies of the company on nature.
- Map the entire business value chain, identifying activities and locations of primary activities and operational assets, raw material supplies and sources, downstream impacts.
- Understand the spatial element of the value chain at a high level (e.g., which region/s in a country the materials draw from).
- Undertake a high-level overlap assessment of the raw material and operational footprint relative to biodiversity, ecosystem and threat values using (e.g., IBAT¹, STAR², ENCORE³ or Landscape⁴).
- Conduct a materiality assessment, using the outcomes of the mapping and overlap assessment. This should define which activities and aspects of the supply chain need to be addressed in terms of their impact or dependencies on nature.
- Assign responsibility at a senior level to lead the development and delivery of the strategy. Ensure the business has appropriate expertise and capacity to deliver on the commitments (e.g., subject matter experts in biodiversity or water).
- Develop a nature positive roadmap or transition plan which encompasses the targets and time frames alongside the pathway to delivery of nature positive.
- Develop cross-sectoral relationships and partnerships that support the delivery of nature positive strategies and interventions.
- Ensure an appropriate budget is assigned to enable the delivery of the actions outlined in the strategy, that are Specific, Measurable, Achievable, Realistic & Timely (SMART).
- Allocate key performance indicators (KPIs) to key corporate positions that reflect the integration and mainstreaming of nature across the business and in all aspects of the business's activities including up- and downstream value chains.
- Frameworks and tools are available to businesses understand and embed nature into their activities. The TNFD LEAP framework and SBTN⁵ framework (Figure 7) can be applied at both the corporate level and at operational sites.

1 Integrated Biodiversity Assessment Tool (IBAT) <https://www.ibat-alliance.org/>

2 Species Threat Abatement and Recovery (STAR) metrics <https://www.iucn.org/resources/conservation-tool/species-threat-abatement-and-recovery-star-metric>

3 Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) <https://encore.naturalcapital.finance/>

4 Powering Landscape Sustainability <https://www.landscape.org/>

5 Science-based Targets Network <https://sciencebasedtargetsnetwork.org/>

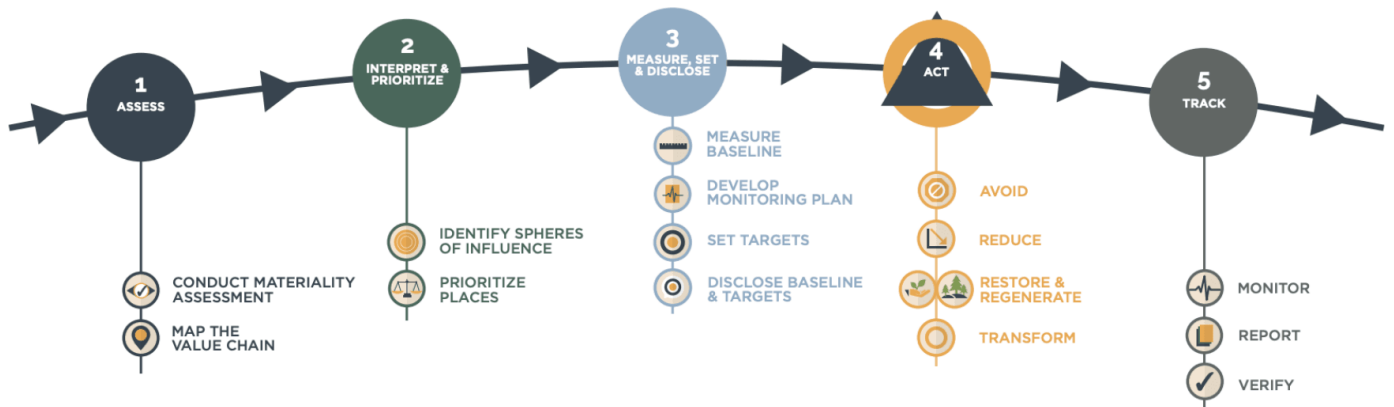


Figure 7. The five-step process of SBTs for nature. Source: SBTN, 2020.

4.2.2. SITE AND PRODUCT LEVEL ACTIONS

For a business to help deliver nature positive outcomes it will require site and product level actions¹ that respond to the issues identified at a strategic corporate level. These need additional detail in terms of data requirements and specific locations of the impact and dependencies. This is necessary to both measure and monitor the impacts and dependencies and to define the correct actions applied through the mitigation hierarchy.

Site level

To underpin their contribution to nature positive, company commitments at the site level require strict application of the mitigation hierarchy, for all direct operations, including zero conversion of natural habitat, to achieve biodiversity targets (e.g., biodiversity net gain² or at least no net loss). This requires like for like net gains at the level of the individual impact, ensuring ecological equivalency between losses and gains across the realms and is delivered at an appropriate scale and location commensurate with where the impacts occurred.

A clear understanding of the state of nature at operated sites (or at least in the first instance for sites in biodiversity sensitive areas), as is an assessment of the impacts and dependencies on nature. In most cases, defining nature and biodiversity features (in terms of species and ecosystem composition, structure, and function) at the site will provide a useful basis from which to identify indicators for measuring efforts made to achieve a site-level target set. Businesses need to be considering:

- For each site, define the baseline using appropriate scientific techniques and including local and traditional knowledge.
- Identify the existing pressures on nature in the landscape, and the likely impacts and dependencies of the company's activities/operations on that biodiversity.
- Identify key indicators and metrics that will enable monitoring of the state of nature as it responds to pressures (that may result in further decline of nature) and management actions (that are designed to help improve the state of nature).
- Quantify state and changes to state, using appropriate biodiversity, ecosystem or natural capital accounting approaches and frameworks (such Business & Biodiversity Offsetting Programme and the Align recommendations, UNEP-WCMC et al., 2022).

1 This paper has not specifically included actions associated with service sectors, but key consideration is the use of products through the supply chain and value chain actions, and assurance that products used are being sourced from suppliers adopting nature positive principles.

2 UK government Biodiversity Net Gain Guidance <https://www.gov.uk/guidance/understanding-biodiversity-net-gain>

- Define actions and activities, including potentially biodiversity offsets if residual impacts remain after all efforts have been made to avoid and mitigate impacts, which are designed to achieve the quantified target.
- Monitor progress through an adaptive management programme and associated monitoring plan, and ensure actions and activities are adjusted to maintain the trajectory towards a nature positive outcome and appropriate corporate level commitments.
- The application and alignment with indicators used in the Kunming-Montreal Global Biodiversity Framework Monitoring framework.

Product level

Addressing nature at a product level requires a different approach to a set of known site level activities where the company has control and influence over a spatial and temporal footprint. Third party organisations and entities are often involved in the raw material and utility supply chain and waste management.

A product is typically composed of multiple materials and ingredients, with impacts and opportunities for nature for each material varying across raw material production, processing, manufacture, use and end-of-life stages. To avoid inadvertent trade-offs, it is critical that product level nature positive actions that contribute to the nature positive global goal consider the entire life-cycle of the product.

Product level assessment should take the initial high-level impact and dependency assessment into a detailed materiality assessment. This should follow the raw material supply chains, including water, energy, and climate footprints, feeding into the product and waste products resulting from the product, tracing these as far as possible to the primary sources as well as end life to define the spatial and temporal footprint. Action may include any of the following:

- Undertake a high-resolution landscape level overlap analysis to understand where products are being sourced (which countries, regions, or biodiversity sensitive areas). Geospatial tools are best suited for this application, using the highest resolution data available.
- Define the product and the raw materials including the volume, and where feasible trace to primary source and end use, including the spatial and temporal footprint (e.g., hectares of land altered or under production) - define and then prioritise materials with highest volumes or greatest impact and dependencies on nature (such as those sourced from biodiversity sensitive areas). Some materials may be difficult to trace to source, particularly those that may be composite or derived from wastes or residues, and data to help inform the footprint may not be available or withheld due to commercial sensitivities.
- Identify other threats and pressures in the landscape, as this helps to define opportunities for actions that the company can take to contribute to jurisdictional or landscape objectives.
- Define indicators or metrics relative to the scale and ecological location of the activities which can then be used to assess potential impacts and dependencies in the supply chain, and progression towards any targets a company may make. Decisions should be based on biodiversity features that are likely to be impacted by activities.
- Quantify, primarily using spatial tools, the likely losses of habitat and ecological quality (functional health and resilience) that are associated with the raw material production processes (e.g., forest loss associated with land under agricultural production, footprint of an industrial complex or mine, infrastructure corridors getting product to market, climate footprint, etc.).

-
- Define actions and activities (e.g., conservation projects, nature-based solutions, mitigation projects), designed to achieve the quantified target, deferring to best practice guidance and respect the rights and needs of IP&LCs.
 - Monitor progress through an adaptive management programme and associated monitoring plan, and ensure actions and activities are adjusted to maintain the trajectory towards nature positive.
 - Work with producer businesses to embed good-practice site level approaches as part of systemic transformation that should seek to have chain of custody responsibility distributed to each agent in the supply chain and production system.

4.2.3. VALUE CHAIN ACTIONS

Working with suppliers and markets is key to business delivery of nature positive outcomes. Chain of Custody requirements should be developed to enable a coherent and integrated linkage of information between the different stages of a value chain and provide assurance on materials at each stage in the value chain. This will better enable the business to drive adoption of nature approaches across the breadth of economic endeavour.

- Work with producer businesses to address site level nature approaches as part of systemic transformation that should seek to have chain of custody responsibility distributed to each agent in the supply chain and production system, thereby supporting increased transparency (e.g., improve land management practices to improve biodiversity).
- Respond to both lender and regulatory requirements that demand increased cadence in due diligence and reporting on raw material supply chains, sourcing, and associated biodiversity footprints.
- Transparently account for and disclose biodiversity or nature-related footprints of supply chains, tracking impacts, dependencies and nature positive contributions making the links to actions for nature.
- Together with collaborators and suppliers, define actions and activities (e.g., conservation projects, nature-based solutions, mitigation projects, improved land management practices, designed to achieve the quantified target).
- Integrating nature positive aligned clauses into supplier contracts (e.g., similar to Chancery Lane Project)³.
- Monitor progress through an adaptive management programme and associated monitoring plan, and ensure actions and activities are adjusted to maintain the trajectory towards a nature positive outcome.

3 Climate aligned clauses in your contracts. <https://chancerylaneproject.org/>

4.3. TRANSFORM

4.3.1. DEFINITION OF TRANSFORMATION

The concept of “transformation” to help deliver the nature positive goal recognises that “tinkering at the margins” will not be sufficient to halt and reverse nature loss. Collective action and fundamental systemic change are required. Yet while the need for transformative change is widely recognised there remains a lack of clarity on how businesses can practically and meaningfully contribute towards transformation (Booth et al., 2023).

SBTN defines transformation as:

“Actions contributing to system-wide change, notably to alter the drivers of nature loss, e.g., through technological, economic, institutional, and social factors and changes in underlying values and behaviours”. SBTN (2020)

Transformation implies large-scale societal change processes, which involve mutually reinforcing actions at different scales and levels of society. This includes actions within and across entities (e.g., changing behaviours, goals, values, and motivations of companies – individually and collectively), in parallel with broader structural transitions (e.g., regarding policies, and technologies), and emphasises the opportunity and need for changes in societal norms and values as well as changes in specific business processes.

In a nature positive context, this means that company-level action and specific structural transitions may be needed to drive the broad societal transformation needed to deliver a nature positive global goal.

4.3.2. SCALES AND TYPES OF TRANSFORMATIVE ACTION

When considering transformative actions by business, it is helpful to think about different scales of transformation, and different types of transformative action (Table 1).

Scales of transformation include landscape, sector, and business model. These three scales go beyond, build upon and complement company-level actions to implement the mitigation hierarchy for contemporary, attributable impacts within a company’s value chain.

Within each of these scales, there are many types of actions that companies can take to contribute towards a nature positive global goal. Types of actions can be divided into three distinct classes: private, social-signalling, and system-changing actions (Naito et al., 2022). Together with other behavioural and structural interventions, by other businesses and stakeholders (e.g., NGOs, policymakers, and activists), these actions can drive structural changes (i.e., transitions and transformations).

Combining these different scales and types of action provides a useful conceptual framework for transformative actions by business towards a nature positive future (Table 2).

TABLE 1. KEY CONCEPTS AND EXAMPLES FOR TRANSFORMATION.

	Term	Explanation	Examples of business actions	Examples of complementary actions
Scale of action	Landscape	<p>Recognises that a company is frequently one among many in a landscape. This can create risks for businesses if their actions for nature are undermined or diluted by the actions of other businesses or by wider societal impacts on nature.</p> <p>Involves working with other stakeholders and actors within a landscape to ensure positive outcomes at a landscape scale.</p>	<ul style="list-style-type: none"> • Supporting cumulative and strategic environmental assessments, for example by sharing data, supporting further data collection, and providing capacity and resources. • Supporting systematic landscape or watershed planning that considers appropriate targets and outcomes for all elements of nature. • Building the capacity of other actors, especially local communities, to engage with and address the drivers of nature loss. • Respecting the rights, values, and contributions on IP&LCs within the landscape. 	<ul style="list-style-type: none"> • Company, sector groups and local government. coordinated landscape-scale planning. • Community participation in landscape-scale planning to ensure positive social outcomes. • Academia contributes data and research to support science-based planning.
	Sector	<p>Recognises that while a company-level action to avoid and reduce nature impacts is critical, the overall effect depends on the actions of others in the sector (e.g., a food business may commit to becoming ‘palm oil free’ to avoid deforestation risks. However, if doing so does not reduce the overall amount of biodiversity loss associated with palm oil production there will be no positive outcome overall).</p> <p>Involves engaging at a sector scale or with specific nodes in the value chain to prevent leakage.</p>	<ul style="list-style-type: none"> • Engaging in industry round-tables. • Increasing capacity of suppliers to implement standards or commitments, to increase the overall total quantity of commodities that align with nature positive goals (e.g., certified or recycled). 	<ul style="list-style-type: none"> • Governments repurpose subsidies to support development of nature positive technologies.

	Business model	This is most fundamental step, which refers to efforts to decouple business processes from negative impacts on nature.	<ul style="list-style-type: none"> Decarbonising energy supply through a transition to renewable energy source. Decoupling protein production from conversion of natural habitats through development of plant- or cell-based alternatives. Shifting to a restorative approach to agricultural land acquisition (e.g., investing in developing agriculture on degraded land rather than converting natural habitat). 	<ul style="list-style-type: none"> Consumers shift norms and values to create higher demand for nature positive products and business models. Investors shift norms and values towards greater investment in nature positive business models.
Type of action	Private actions	Actions that companies privately conduct to address their own impacts on nature. These actions can incidentally contribute to shifts in demand patterns.	<ul style="list-style-type: none"> Developing and implementing biodiversity strategies which strictly adhere to the mitigation hierarchy, to deliver NNL/NPI/NG for contemporary attributable value chain impacts. 	<ul style="list-style-type: none"> Actions that individual consumers privately conduct to reduce their own impacts on nature (e.g., purchasing products from certified sustainable sources).
	Social signaling actions	Actions that companies conduct to publicly share and signal their values, attitudes, and opinions. These actions can contribute to spreading social norms and meanings of practice aligned with nature positive. Social signalling actions have the potential for norm change that inspires other actions from companies and individuals within the companies' spheres of influence.	<ul style="list-style-type: none"> Publicly sharing nature goals and strategies and disclosing impacts (positive and negative) and progress towards delivering these goals. Signing up to public-facing corporate pledges (e.g., Fashion Pact, Finance for Biodiversity Pledge, Business for Nature's "Make it Mandatory" campaign). 	<ul style="list-style-type: none"> Actions that individual consumers conduct to signal their values, and potentially drive changes in values and social norms.
	System change action	Actions that companies collectively engage in with the intent of influencing laws, policies, institutions, infrastructure and sectors. These actions can inspire broader change and indirectly influence behaviours of other companies across the value chains.	<ul style="list-style-type: none"> Petition signing. Advocating/lobbying for new policies and regulations. Collectively boycotting certain high-impact commodities, practices, or suppliers. 	<ul style="list-style-type: none"> Actions that individual consumers and investors conduct to changes policies and institutions.

TABLE 2. A CONCEPTUAL FRAMEWORK (WITH EXAMPLES) FOR BUSINESSES TO IDENTIFY TRANSFORMATIVE ACTIONS TOWARDS A Nature positive FUTURE.

		Private actions	Social signaling action	System change action
Large food retailer	Company	Make company-level land-use conversion of natural ecosystems.	Publicly share and track progress towards company value chain land-conversion free commitment.	Engaging with/incentivise direct suppliers to adopt best practice standards/make their own land-conversion free commitments.
	Landscape	Systematic and participatory landscape planning (e.g., as part of sub-national jurisdictional approach) to ensure land-conversion free at the landscape scale.	Publicly share and track progress towards a landscape-scale land-conversion free target.	Advocate for mandatory land-conversion free policies at the landscape scale within jurisdictions of operation.
	Sector	Engaging in round-tables with other food companies to secure sector-level adoption of land-conversion free commitments.	Publicly share and track progress towards a sector-wide land-conversion free target.	Advocate for mandatory land-conversion free policies for the sector.
	Business model	Early adoption of new sustainable food biotech, such as sourcing and selling cultured meat.	Publicly share commitments to purchase and sell cultured meat.	Advocate for government investments in/tax incentives for R&D for cultured meat.
Mining company	Company	Ensure net gain for mining operations following mine closure, by implementing best practice standards.	Publicly share and track progress towards net gain commitments.	Transition towards only establishing mining operations that supply critical minerals to support the energy transition.
	Landscape	Facilitate or contribute to a landscape-scale plan as part of impact mitigation and offsetting, so there are overall positive outcomes for the landscape.	Collect, share, and publish biodiversity data at landscape scale together with other stakeholders. Transparent tracking/sharing of implementation of landscape plan.	Advocate for landscape-scale net gain policies as part of land use planning within jurisdictions of operation.
	Sector	Engage in round-tables and invest in technologies that promote circularity at the sector scale.	Openly share data on mine impacts and dependencies. Encourage sector-wide transparency and benchmarking initiatives which could incentivise improvements across the sector due to reputational risk.	Advocate for laws on mandatory net gain for the whole sector.
	Business model	Invest in new technologies to decarbonise extraction and processing, and safely eliminate waste and tailings.	Publicly share commitments to invest in new technologies.	Advocate for government investment in/tax incentives for decarbonisation R&D.

4.3.3. SETTING TARGETS FOR TRANSFORMATIVE ACTIONS

Transformative actions should not be regarded as ‘optional extras’ but as a core and necessary part of the journey towards a nature positive global goal (Booth et al., 2023) and may often require collaborative action that is not entirely under the control of an individual company. As such, businesses can be reluctant to set specific transformation targets. Similarly, stakeholders can be concerned about the potential for vague and misleading claims or about over-optimistic reliance on unproven approaches. This means that steps to addressing attributable, contemporary impacts via strict adherence to the mitigation hierarchy should be prioritised.

Drawing on existing disclosure frameworks and guidance, the following consideration can help companies towards transformation:

1. Develop a nature positive roadmap or transition plan which encompasses SMART targets and actions.
2. Underpin the targets in the plan with a clear theory of change that shows links to business impacts (where appropriate) and sets out the intended scale of those outcomes and how the action will contribute towards the nature positive global goal.
3. Set targets that focus on the anticipated outcomes in terms of changes in the state of nature or of key impact drivers that can be measured and reported quantitatively. Where outcomes are not expected to be measurable in the short-term¹, companies can set targets around leading process indicators.
4. When applying new or untested technologies or approaches, they should be supported by a transparent assessment on the level of feasibility for them to be deployed at the required scale to achieve the intended outcomes (McLeod, 2021).
5. Targets and on actions should be included in business disclosures (e.g., when using the TNFD framework) and communications.

¹ Since nature positive aims at halting nature loss by 2030, a meaningful definition of ‘near-term’ would be ‘by 2025’.

4.4. DISCLOSURE

Transparent disclosure is required to ensure an increase in corporate accountability. This will require robust, science-driven disclosure requirements that align with the global goal for nature, and the Kunming-Montreal Global Biodiversity Framework. If successful, nature-related disclosures will increase financial institutions' ability to understand business/portfolio exposure risk to nature loss and re-direct financial flows to sustainable investments.

To enable business action, there is consensus on learning and building on existing reporting frameworks for climate. The Taskforce on Nature-Related Financial Disclosures (TNFD) is working to develop a risk management and disclosure framework that will allow businesses to report and act on evolving nature-related risks (and is built on the assumption that businesses will disclose on location-specific impacts and dependencies on nature across their value chain). Mandatory reporting requirements (e.g., Corporate Sustainability Reporting Directive), will require all listed companies within the EU to report on biodiversity and ecosystem service impacts/dependencies.

Disclosure results should be quantitative and location-based for material issues, where possible, including disclosure on performance towards targets and how the application of the mitigation hierarchy is being applied. In the absence of this, potential impacts need to be worked through and reported on and build upon nature positive strategies communicated in annual reports. Goals and targets should be SMART and include thoughtful narrative to describe actions taken annually and which are aligned or consistent with national biodiversity action plans. To achieve this, reporting needs to showcase (EUB@B Nature Positive; 2022):

- **Measured baseline:** Currently, multiple suggestions exist for the baseline year against which to report outcomes (e.g., 2020 or 'now'). Consensus is needed from the nature positive community, to provide business with clear direction against what baseline to assess against. There is agreement that baselines should be 'static' rather than a negative counterfactual, to ensure that the absolute net 'positive' element of nature positive is achieved.
- **Clearly defined targets:** Externally disclosed, SMART nature-related targets are required to a) determine the metrics/indicators required for monitoring and b) help operationalise nature across an organisation. Targets should be based on material issues that pose the greatest risk to nature and reported publicly.
- **Progress to targets:** It has been suggested that a 'nature positive contributions or an accounting registry' be developed, to allow businesses publicly to report on their progress. Publicly available platforms that are developed will need to ensure the avoidance of 'double-counting', credible 'discounting' and focus on nature-related outcomes rather than processes.
- **Actions taken:** There is recognition that determining the metrics/indicators, collecting data and disclosing results will take ample investment and time from businesses. Rather than waiting for an exact solution, the nature positive community agrees that action and measurable outcomes are needed immediately, to work within the short time frame presented to halt and reverse nature loss. Disclosing impacts on nature, mitigation actions taken to address these impacts, as well as the outcomes, and describing those actions taken further to help deliver the nature positive goal is key to increase momentum and enable sector-level, peer learning.
- **Challenges/barriers faced:** Public disclosure and reporting of quantified results will be an iterative process, particularly for businesses with large supply chains. In these instances, disclosure should focus on assumptions made, actions undertaken (e.g., attempting to determine production location with suppliers), outcomes achieved, and barriers faced (e.g. suppliers unable to provide production location due to lack of information, privacy agreements etc.). This will allow identification of sector-based challenges requiring innovation and enable the transformative change.

Transparent, external disclosures would benefit from third party auditing, with a focus on verifying outcome delivery. When multiple actors working within the same landscape begin reporting on nature actions using similar metrics and indicators, landscape level actions can be identified. These are essential to ensuring nature positive ambitions are met, as landscape actions are required to contribute towards the nature positive global goal.



Gemsbok with orange sand dune evening sunset. Gemsbuck, Oryx gazella, large antelope in nature habitat, Sossusvlei, Namibia. Wild animals in the savannah. Animal with big straight antler horn.

5. FURTHER DEVELOPMENT OF THE NATURE POSITIVE CONCEPT

The concept of nature positive and the approaches businesses need to adopt to contribute towards the global goal for nature are still in development. This Technical Paper focuses on our current understanding of nature positive and the consolidation of previous concepts and approaches.

At present nature positive approaches for businesses to help deliver nature positive outcomes remain focused on the 're-shaping' of existing practices, but it is widely accepted that more holistic and transformational practices are needed by businesses, governments, and civil society to reach the 2050 goals (Figure 1), as presented and discussed in this paper. To help facilitate this nature positive transition, businesses and other stakeholders still require further clarification and understanding of the nature positive concept. To help in this nature positive journey and inform the necessary transformative changes it is important to::

- Develop a single conceptual model of nature positive and industry sector scenarios on how nature positive may be achieved.
- Develop clear, concise, practical, and consolidated guidance for businesses, so that the actions businesses take are auditable – and not a diversification of guidelines, initiatives, or approaches.
- Embed nature positive into international and national policies (including National Biodiversity Strategy and Action Plans) and develop national policies and regulations which incentivise businesses to adopt nature positive approaches.
- Determine how the nature positive concept can be embedded into global trade rules, global digitalisation (Hedberg & Sipka, 2020) and data integration (Heberling et al., 2012).

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ANNEX 1: KEY TERMS AND DEFINITIONS

Baseline	A description of existing conditions to provide a starting point (e.g. pre-project condition of biodiversity) against which comparisons can be made (e.g. post-impact condition of biodiversity), allowing the change to be quantified. (BBOP, 2018).
Biodiversity	Biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems. (CBD, 1992).
Biodiversity net gain	A goal for a development project, policy, plan or activity in which the impacts on biodiversity it causes are outweighed by measures taken to avoid and minimise the impacts, to restore affected areas and finally to offset the residual impacts, to the extent that the gain exceeds the loss. (BBOP, 2018).
Dependency	Aspects of nature’s contributions to people that a person or organisation relies on to function, including water flow and quality regulation; regulation of hazards like fires and floods; pollination; carbon sequestration. (SBTN, 2020).
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit. (CBD, 1992).
Impact	Can be positive or negative contributions of a company or other actor toward the state of nature, including pollution of air, water, soil; fragmentation or disruption of ecosystems and habitats for non-human species; alteration of ecosystem regimes. (SBTN, 2020).
Nature	The natural world, with an emphasis on the diversity of living organisms (including people) and their interactions among themselves and with their environment. (TNFD working definition taken from Díaz, S et al. (2015) The IPBES Conceptual Framework – connecting nature and people).
Nature-based solutions	Actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits. (UNEA, 2022).
Net positive impact	Net Positive Impact (NPI) on biodiversity is a target for project outcomes in which the impacts on biodiversity (i.e. the variety of ecosystems and living things) caused by the project are outweighed by the actions taken to avoid and reduce such impacts, rehabilitate affected species/landscapes and offset any residual impacts. (NPI Alliance, 2015).
No net loss	No net loss is defined as the point at which project-related impacts on biodiversity are balanced by measures taken to avoid and minimise the project’s impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale (e.g., local, landscape-level, national, regional.) (IFC, 2019).
Mitigation hierarchy	The sequence of actions to anticipate and avoid, and where avoidance is not possible, minimise, and, when impacts occur, restore, and where significant residual impacts remain, offset for biodiversity-related risks and impacts on affected communities and the environment (CSBI, 2015).
Species	Groups of actually or potentially interbreeding natural populations, which are reproductively isolated from other such groups. (Mayr, 1942).



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