



The role of Nature-based Solutions in strategies for Net Zero, Nature Positive and addressing Inequality

Insights from the evolution of Natural Climate Solutions as part of corporate action on Climate

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1 Introduction



1 Introduction

VISION 2050: LIVING WELL, WITHIN PLANETARY BOUNDARIES

The World Business Council for Sustainable Development (WBCSD) and its member companies are committed to working toward *Vision 2050: Time to Transform*, a world where more than 9+ billion people live well, within planetary boundaries, by mid-century. Using the latest scientific and development thinking, we have a clear understanding of what this means.

“Living well” means that everyone’s dignity and rights are respected, basic needs are met, and equal opportunities are available for all.

Living “within planetary boundaries” means that global warming is stabilized at no more than +1.5°C, and nature is protected, restored and used sustainably. It also means that societies have developed sufficient adaptive capacity to build and maintain resilience in a healthy and regenerative Earth system.

Achieving this vision is central to our ability to run our businesses profitably and generate long-term value.¹

THE URGENT NEED FOR ACTION

This vision is still within reach – but we have to act faster.

Unprecedented global risks and crises continue to build: we are facing a perfect storm in the form of a climate emergency, nature in a state of crisis, and mounting inequality and social unrest. Key tipping points are being reached in all three of these “Imperative” areas, Climate, Nature and Equity; it is vital that we act upon them now.

Our planet is already past 1°C of warming, and the IPCC reports make clear how crucial it is to keep below 1.5°C to reduce the impact of climate change².

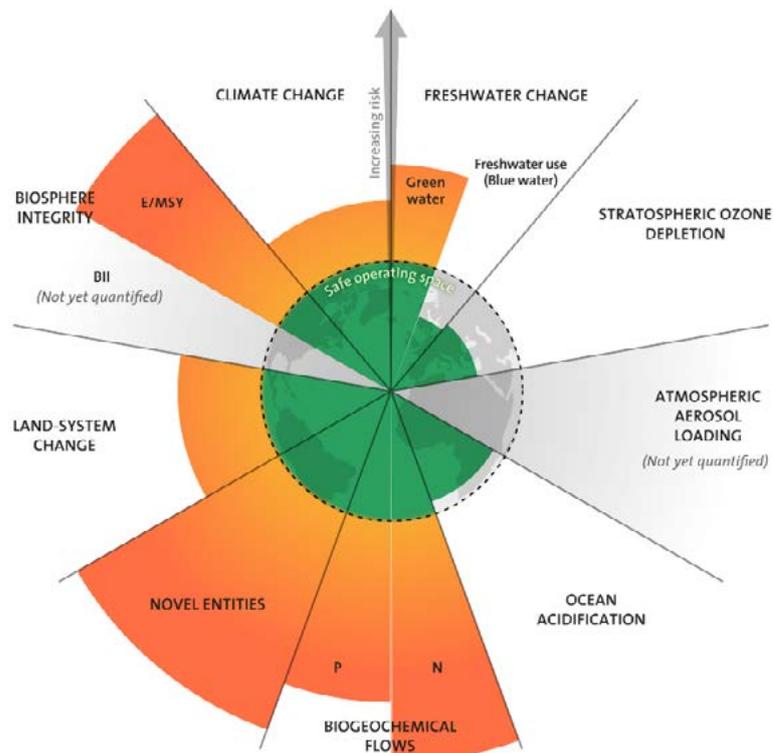
Nearly 70% of the populations of mammals, birds and other animals

have been lost between 1970 and 2016³; Nature is being destroyed faster than it can regenerate, driving communities and ecosystems to crisis. The Global Biodiversity Framework (specifically Target 8) highlights the need for action on this front⁴.

At the same time, disparity and inequality continue to erode social cohesion, diminish trust in public institutions, fuel civil conflict and exacerbate polarization, undermining our ability to act collectively on crises such as Climate and Nature⁵.

As Figure 1 shows, our planetary boundaries are being exceeded – and the impact is embedded within every aspect of our lives. The next decade represents a final window of opportunity to correct our course.

Figure 1: 2022 Planetary Boundaries analysis⁶



THE ROLE OF BUSINESS

Vision 2050 can only be achieved through urgent and significant transformations of our economies and societies. The role of business on the three “Imperatives” – Climate, Nature, and Equity action

– is evolving, and frameworks and solutions are being developed to support businesses in taking action. Examples include the [Net Zero Standard for Climate](#), the [High-level Business Actions on Nature](#) and

the Key Areas for Business Action to Tackle Inequality as set by the [Business Commission to Tackle Inequality \(BCTI\)](#), shown below.

Figure 2: The Net Zero Standard⁷

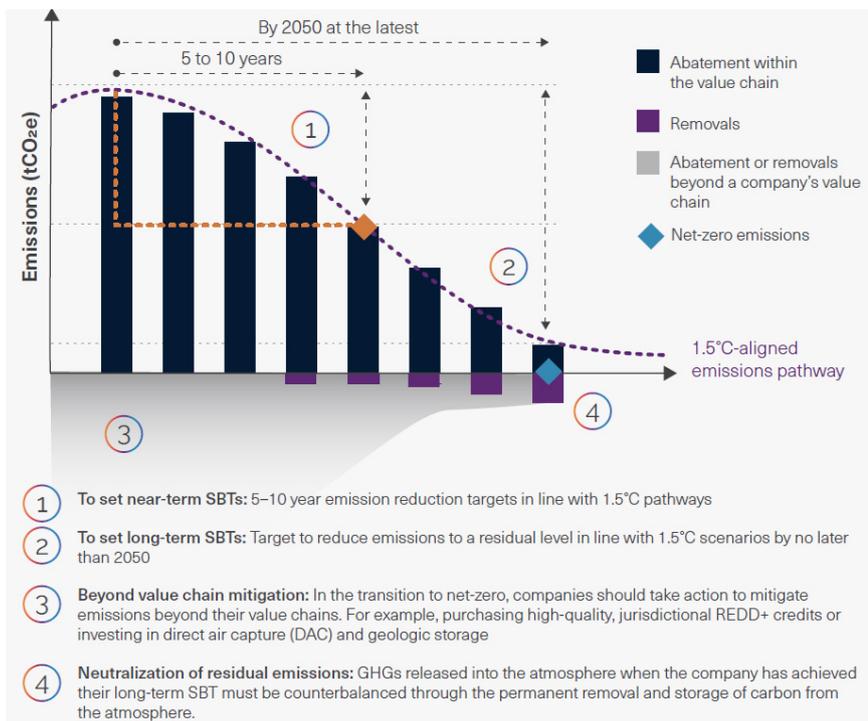


Figure 3: The Global Goal for Nature⁸ and the High-level Business Actions on Nature⁹

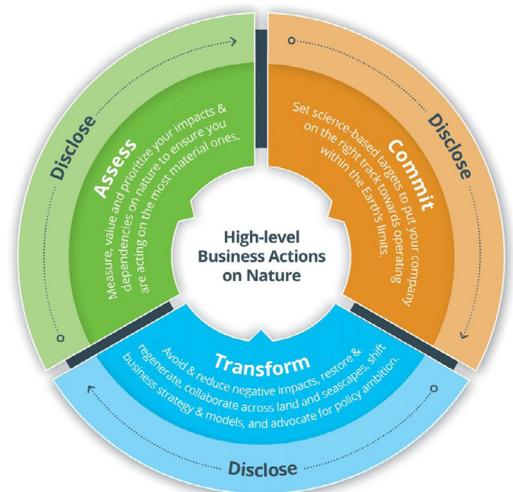
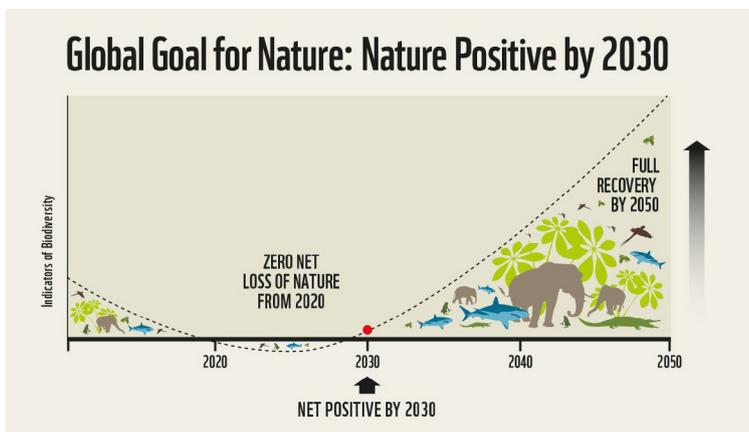
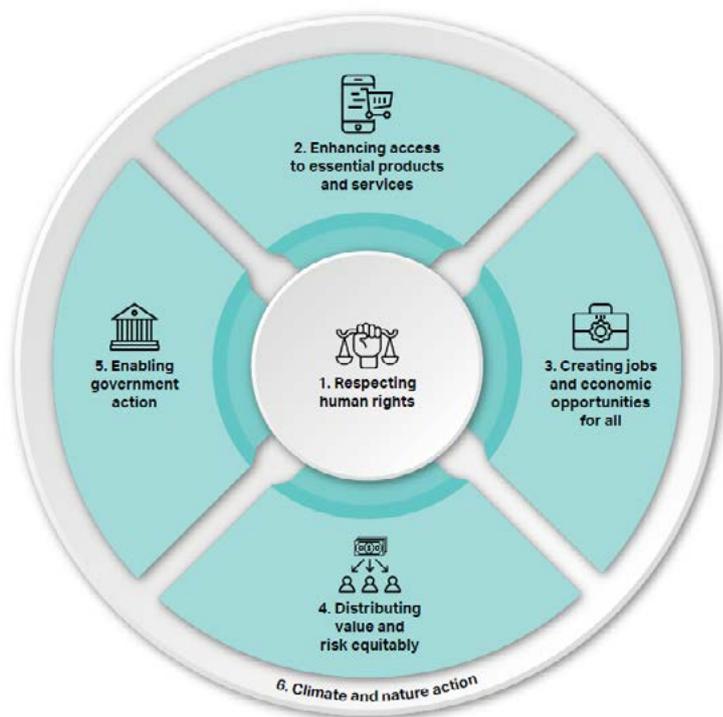


Figure 4: Key Areas for Business Action to Tackle Inequality¹⁰



While there is a lot to be done, there are also significant opportunities to take actions that deliver genuine positive impact across all three imperative areas, such as **Nature-based Solutions (NbS)**. This is outlined in the following two sections.

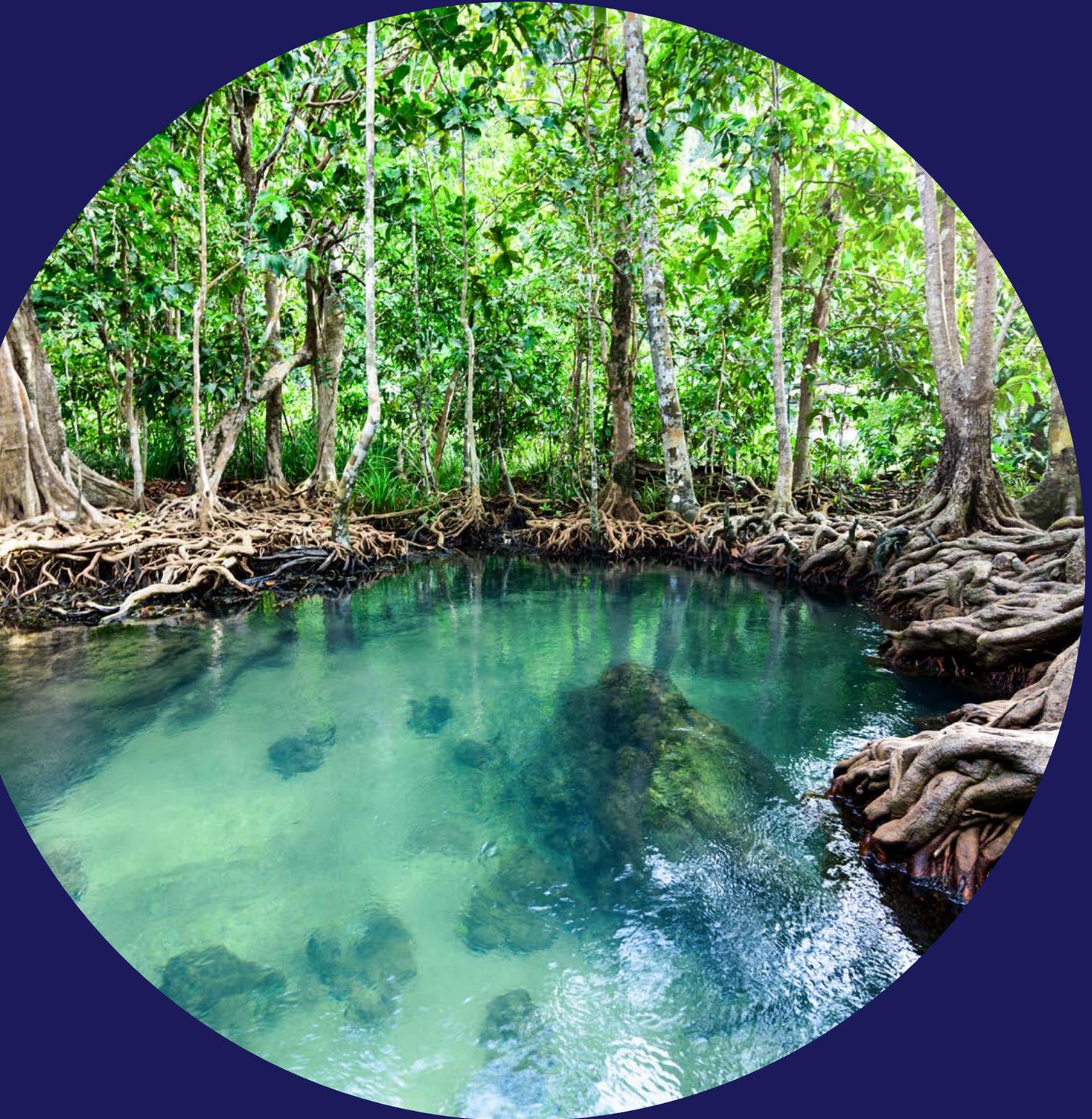
BREAKDOWN OF REPORT

This report will present:

- the role of companies' action on Nature-based Solutions (NbS) and how this can be leveraged to deliver against the three imperative areas: climate, nature and equity;
- a deep dive on the role of NbS in Net Zero, with supporting issue briefs for companies engaging from a climate perspective, and
- conclusions and insights on the direction of travel for NbS in corporate sustainability action.

It is important to note that this paper focuses on the role of NbS (and specifically Natural Climate Solutions) in climate action; this is the best-defined at present, and presents insights on how NbS can contribute to the other two imperatives. As approaches for nature and equity action develop, they will add to the case made here for investment in NbS.

2 Nature-based Solutions and Natural Climate Solutions



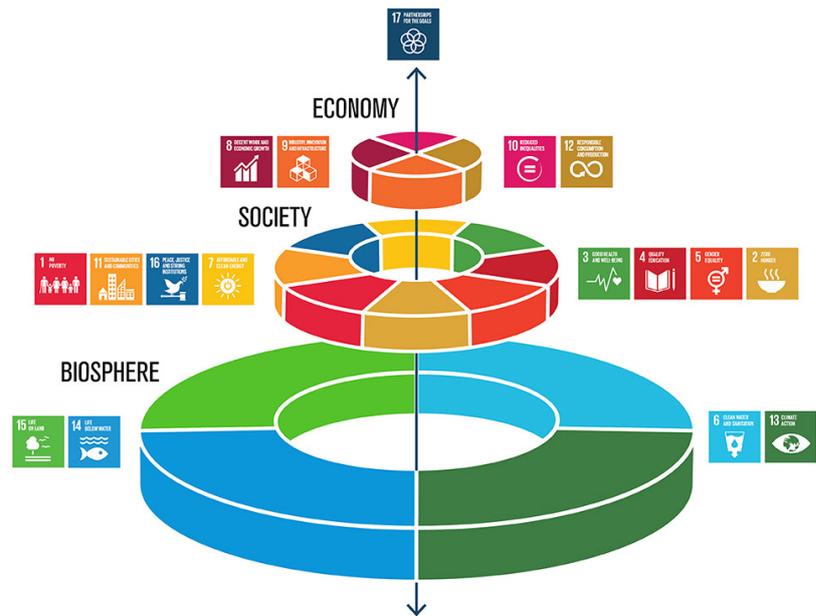
2 Nature-based Solutions and Natural Climate Solutions

As the Sustainable Development Goals (SDGs) graphic in Figure 5 shows, people and business both depend on natural ecosystems and the services they deliver; over 50% of global economy is moderately or highly-dependent on healthy and functioning ecosystems.¹¹ At the same time, the Agriculture, Food and Other Land Use sector (AFOLU) accounts for approximately 22% of all global Greenhouse Gas (GHG) emissions at present.¹²

The UN Environment Assembly defines Nature-based Solutions (NbS) as "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 and resilience and biodiversity benefits."¹³

Nature-based Solutions center on addressing our impact on natural ecosystems, offering approaches that demonstrate action on climate, nature and improving equity such as protecting standing forests, supporting improved agricultural practices, growing mangroves along vulnerable coastlines and many more. NbS like these offer real positive impacts including climate mitigation, increased biodiversity, rural economic development and others.

Figure 5: SDGs graphic demonstrating the interconnection between economy, society, and the biosphere¹⁴



What are Natural Climate Solutions and how do they deliver positive impact?

Natural Climate Solutions (NCS) refer to Nature-based Solutions (NbS) addressing climate change. They include actions that conserve, restore, or improve land management practices to increase carbon storage and/or avoid greenhouse gas (GHG) emissions across global forests, wetlands, grasslands, and agricultural lands.¹⁵

High quality NCS activities effectively address common issues in climate action (e.g. permanence, additionality, leakage, double-counting and robust quantification) and **go above and beyond the delivery of climate mitigation** by providing positive impacts such as:

- gains to biodiversity and ecosystem integrity,
- substantive social and economic benefits for local communities and Indigenous Peoples, and
- climate risk protection (e.g. by improving the resiliency and adaptive capacity of landscapes).

3 The case for business action on NbS and lessons from Net Zero integration



3 The case for business action on NbS and lessons from Net Zero integration

The case for business action on NbS differs by sector; for all companies, though, it is a genuine demonstration of action in line with each of the fundamental journeys depicted in Figure 2, Figure 3, and Figure 4. For companies with value chains in the AFOLU sector, it is the core decarbonization needed to align with a 1.5°C future, as well as a crucial investment in value chain resilience.

Importantly, NbS are ready to make an impact in the short-term, and we need action now.

Based on some of the insights gained from the role that Natural Climate Solutions (NCS) have played in corporate climate action to date, businesses should consider the following steps to ensure that NbS are able to deliver to their potential across the three imperatives:

- integrating NbS within core company strategies, ensuring alignment with targets and business models,

- endorsing and investing in high-quality NbS activities (including within value chains where available),
- maintaining high integrity in companies' use and disclosure of NbS activities and
- ensuring that all three imperatives are considered throughout the process of supporting NbS.

More information on the role of NCS as a part of business action on climate is available in the set of associated technical papers outlined below, which cover the role of NCS in Net Zero, insetting, carbon standards for NCS, and core benefits standards.

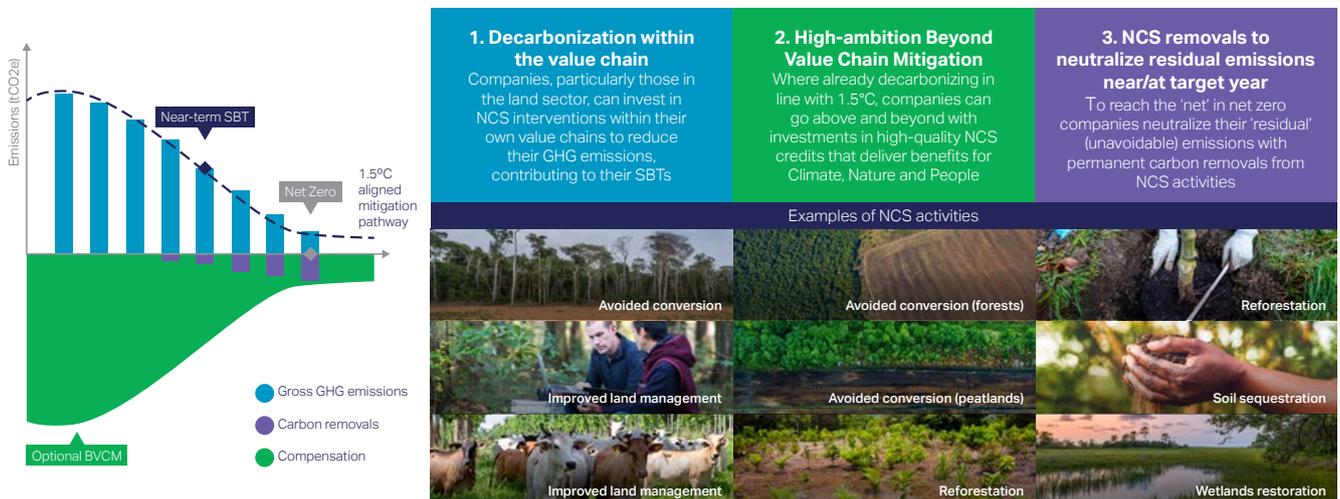
TECHNICAL PAPER 1: THE ROLE OF NCS IN NET ZERO ACTION

A traditional Net Zero pathway (as outlined by the [Science-based Targets Initiative](#), or SBTi) does not

explicitly refer to Nature-based Solutions or Natural Climate Solutions, focusing instead on general terms of company activities and value chain impacts. However, depending on the company, NCS can in fact contribute to all three elements of a company's journey to Net Zero:

1. Within value chains, decarbonization in line with near-term Science Based Targets can involve NCS, particularly for companies in the AFOLU sector ([see blue squares in Figure 6](#));
2. Through "Beyond Value Chain Mitigation", NCS can compensate for emissions that have not yet been abated by a company on the journey towards Net Zero ([see green squares in Figure 6](#));
3. Finally, when companies approach their Net Zero target year, NCS removals can be used to "neutralize" residual emissions ([see purple squares in Figure 6](#)).

Figure 6: Breakdown of NCS uses in SBTi pathway to Net Zero¹⁶



More information on this topic can be found in the associated paper [The Role of Natural Climate Solutions in reaching Net Zero](#).

In addition to what is described by the SBTi, the [NCS Alliance](#) has set out a “high ambition pathway” in their recently-released report [Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives](#). The Alliance urges all businesses that avoid and reduce their own emissions in line with a science-based reduction pathway to counterbalance their annual unabated emissions by purchasing high-quality NCS voluntary carbon credits. The “high ambition pathway” calls for:

- purchasing and retiring high-quality NCS voluntary reduction and removal credits during the transition to Net Zero to

counterbalance unabated value chain emissions. These credits should not be used in lieu of or delay the emissions reductions necessary to meet long-term science-based targets for Scopes 1, 2 and 3; and

- going beyond Net Zero by purchasing and retiring high-quality NCS voluntary carbon credits to counterbalance historical emissions and contribute towards climate recovery.

A full breakdown of the high ambition pathway, the business case and recognizing the full value of investments in NCS using this approach is available in [Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives](#).

TECHNICAL PAPER 2: INSETTING AND USING NCS TO MOVE TOWARD NET ZERO

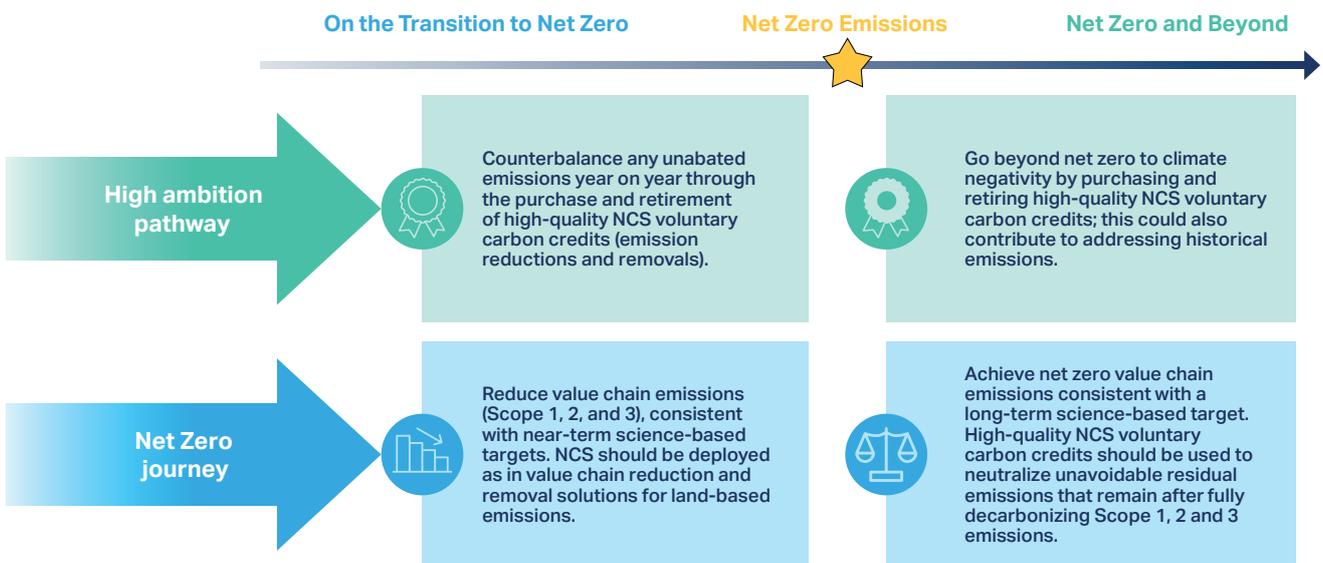
“Insetting” has emerged in recent years as a key mechanism for AFOLU sector companies to achieve their climate goals by implementing NCS within their value chains as part of decarbonization efforts. To support companies in accounting for these activities, the Greenhouse Gas (GHG) Protocol is currently developing the new [Land Sector and Removals Guidance](#), which contains frameworks for reporting emissions and carbon removals from AFOLU sector activities – including insetting.

The latest draft of the GHG Protocol guidance, released in September 2022, outlines how a company can

Figure 7: Description of the NCS Alliance high ambition pathway

Achieving Net Zero with Natural Climate Solutions

Natural Climate Solutions (NCS) contribute to Net Zero goals by counterbalancing unabated emissions, addressing historical emissions and reducing and neutralizing value chain emissions.



account for inset credits generated by activities within their value chain. In line with the mitigation hierarchy, decarbonization within the value chain is the priority. When in-scope reductions or removals occur, companies can assure the quality of these activities by creating inset credits. These are reflected within the corporate inventory when used against contribution or financing targets. The GHG Protocol has defined insets this way to maintain the integrity of corporate inventory accounting while incentivizing the use of high-quality insets. For more information on the existing definitions of inseting, the draft guidance from the GHG Protocol and the business case, see the associated paper [Insetting and Scope 3 climate action: applying and accounting for Natural Climate Solutions \(NCS\) in land sector value chains](#).

TECHNICAL PAPER 3: CARBON STANDARDS FOR NCS CREDITS

As momentum builds for tackling the climate, nature and inequality crises, many companies are investing in NCS credits; on the voluntary carbon market, demand has soared from approximately USD\$272 million in 2020 to around USD\$2 billion in 2022.¹⁷ Whether used as part of AFOLU sector decarbonization and/or broader private sector Beyond Value Chain Mitigation (BVCM), the integrity of credits is crucial.

There is no universal definition of “high integrity” yet, for NCS or even carbon credits in general. As a result, several multistakeholder groups have drafted their own sets of principles to define high-integrity NCS. Assessing the performance of carbon standards against these sets of principles is not straightforward; there is a wide range of factors at play across NCS activities and the marketplace.

However, several initiatives – including the International Carbon Reduction and Offsetting Alliance (ICROA) and the International Civil Aviation Organization (ICAO) – report the performance of carbon standards against their own quality criteria. The [Integrity Council for the Voluntary Carbon Market](#) is currently developing a similar assessment framework, which will provide an additional tool for assurance and quality control.¹⁸ The degree of “acceptance” by these organizations is useful as a proxy in understanding the credibility of each standard.

As the definition of “high integrity NCS” – and the market for credits of this type – develop, it is important that companies understand the mechanisms and tools available to support their due diligence and purchasing processes, including carbon standards. More information is available in the associated paper, [Carbon Standards for Natural Climate Solutions credits](#), alongside a set of factsheets on several major standards delivering NCS credits (including their coverage and a measure of their “acceptance” at present). Companies can also review publications from the NCS Alliance such as [Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives](#) and [Natural Climate Solutions for Corporates](#).

TECHNICAL PAPER 4: NATURAL CLIMATE SOLUTIONS AND “CORE BENEFITS”

As business action on the imperatives gains momentum, demand is growing rapidly for activities that achieve both climate mitigation and clear benefits to communities and the wider environment. The [Intergovernmental Panel on Climate Change](#) (IPCC) confirms the value of NCS in this sense; the special

reports on Land Use and Oceans and the Cryosphere state that “transformations to societal and economic processes on land and water systems can play an integral role in both climate mitigation and achieving the UN SDGs”^{19,20}.

The positive impacts on sustainable development achieved by implementing NCS should therefore be viewed as **“core” benefits** rather than “additional” or “co-benefits” – and as **expected outcomes** rather than potential upsides. They are crucial in achieving long-term sustainability for climate, nature, and people. In fact, many of the positive outcomes from NCS are highly interrelated, from protection of biodiversity and ensuring resilience to transitioning to a more sustainable economy. Woven through the implementation of all NCS is a lasting need to work with and deliver positive impact for local communities, including Indigenous Peoples, whose participation and knowledge are key to the success of NCS activities.

Standards have a key role to play in ensuring that the full range of positive impacts from activities such as NCS is recognized; while the available core benefits assessment tools are not yet as advanced as those for greenhouse gas emissions, they are developing rapidly. As momentum for business action on the imperatives grows, it is ever more important that companies recognize and understand how these tools can support their due diligence and purchasing processes.

More information is available in the associated paper, [“Core Benefits” Standards and the impact of Natural Climate Solutions \(NCS\) on sustainable development](#), alongside a set of factsheets on several standards that assess core benefits. [Natural Climate Solutions and the Voluntary Carbon Market: A Guide for C-suite Executives](#) from the NCS Alliance also provides useful insights on this topic.

4 NbS is integral to Net Zero, Nature Positive and addressing Inequality



4 NbS is integral to Net Zero, Nature Positive and addressing Inequality

We have a vision to work toward – a world in which more than 9 billion people live well, within planetary boundaries, by mid-century. There are three major challenges in achieving that vision, three areas for “Imperative” action: avert the climate crisis, restore nature and tackle inequality. Businesses have a crucial role to play in addressing these, but in doing so we need integrated solutions that match the interconnected nature of the crises we face.

DELIVERING VISION 2050 WITH NBS

Natural ecosystems are the foundation for people, climate, and economies – and Nature-based Solutions, including Natural Climate Solutions, empower our ecosystems to address the three imperatives and drive us toward achieving Vision 2050.

In order to make this happen, NbS need to become integral parts of every company’s strategies for climate, nature, and addressing inequality – reflecting their status as one set of solutions that delivers impact across all three imperatives.

ROLE OF NBS WITHIN COMPANY STRATEGY AND ACTION

NbS deliver valuable positive impact on climate, nature and equity action – the three imperatives – and we need greater strategic integration across companies’ sustainability efforts to reflect this. At present, the climate action agenda is the most advanced. As a result, this report has highlighted the role that Natural Climate Solutions can play within a climate strategy while recognizing their capacity to address nature loss and equity.

Within the climate framing, NbS – and specifically NCS – are central to Net Zero delivery on three different levels: AFOLU-sector decarbonization through insetting, Beyond Value Chain Mitigation (BVCM), and neutralization of residual emissions for all companies. Each of these

levels is developing swiftly; insetting is gaining supporting infrastructure, bringing these NCS options into the inventories of AFOLU companies. The value of BVCM is gaining visibility, and carbon standards are working to meet the need for strong quality control and robust due diligence. The “core benefits” to Climate, Nature and People from NCS are being demonstrated and tracked by developing standards as well, enabling due diligence for more than climate mitigation alone.

The development of the role of NCS within Climate action indicates the value of integration within core company strategies (such as Net Zero), supporting high-quality NbS within and outside the value chain and recognizing the range of core benefits arising from NbS investments. These provide important lessons and insights for building strategies to address all three imperatives.



CALL TO ACTION

All companies can and should contribute to NbS as a solution set for climate, nature and equity action.

The business case differs from sector to sector, and each company will need to undertake a journey to action guided by frameworks like the Net Zero Standard (Figure 2), the High-level Business Actions on Nature (Figure 3) and the Key Areas for Business Action to tackle Inequality (Figure 4).

On climate specifically, through a blend of in-scope decarbonization, Beyond Value Chain Mitigation, and neutralization of residual emissions, NbS can play a fundamental role in every company's Net Zero strategy. In addition to this, following the NCS Alliance high ambition pathway, businesses in all sectors

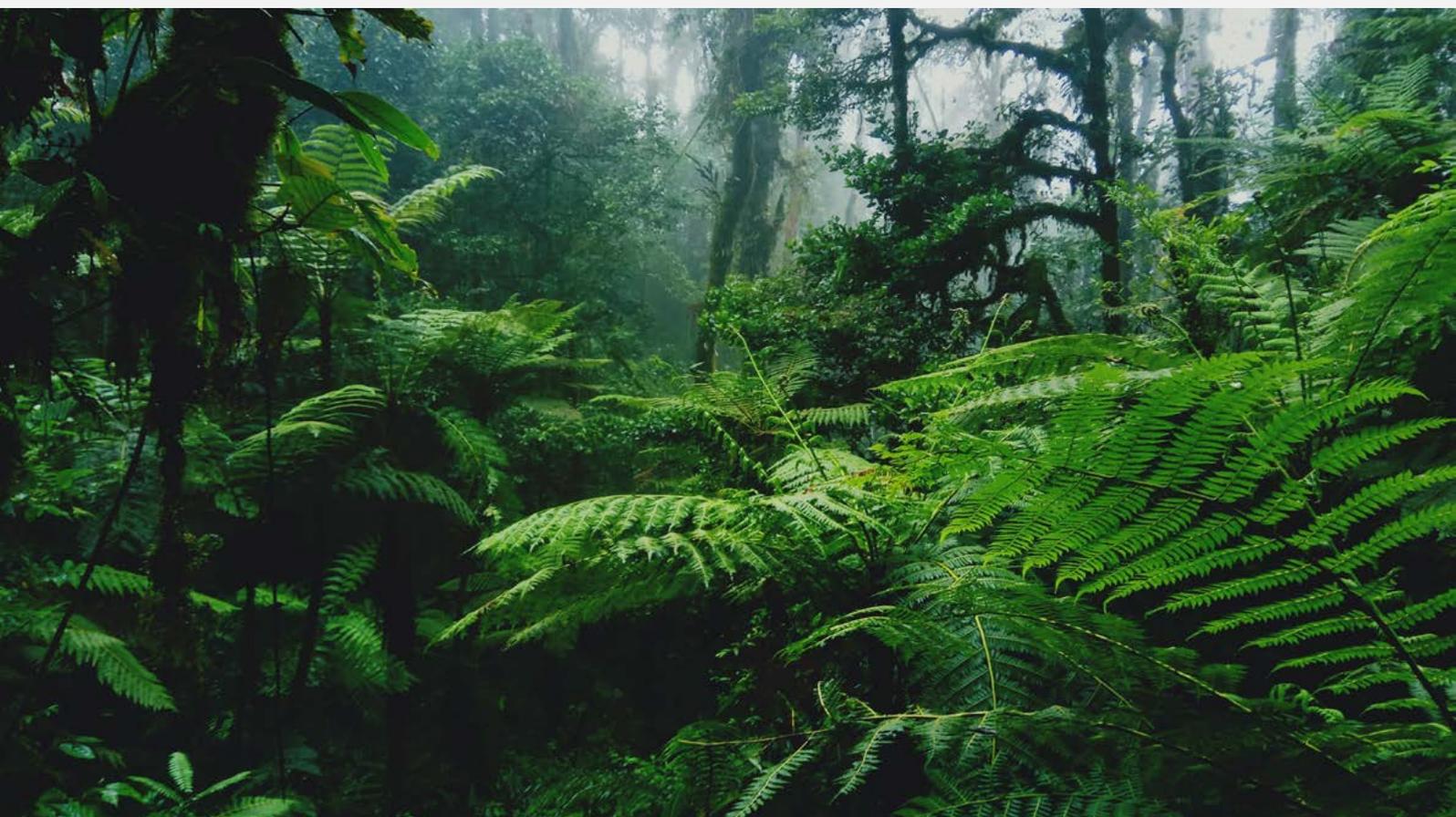
can invest immediately in high-quality NCS carbon credits through the voluntary carbon market to counterbalance their unabated value chain emissions. With well-integrated company strategies across the three imperatives and enabled by effective core benefits assessment, NbS can deliver significant positive impact for nature and people as well.

Members of WBCSD are already putting this thinking into practice across the three imperatives. Every company has committed to membership criteria built upon the Imperatives that include specific support for NbS in their Climate and Nature action. At the same time, WBCSD members have launched collective projects on [Nature-based Solutions](#), supporting and growing the [NCS Alliance](#) and developing [pathways to Nature Positive](#) for the private sector.

While this is a strong start, we need to scale up and accelerate business action. We must use every approach available to realize the vision of a world in which more than 9 billion people live well, within planetary boundaries, by mid-century.

Nature-based Solutions, including Natural Climate Solutions, are pivotal in this effort, as they tackle the climate, nature and inequality crises in an integrated way.

The business case will only grow stronger, and the urgency will only increase. Companies must ensure that their strategies and business models are aligned to invest in natural ecosystems that benefit climate, nature and people, line up their decision-making and due diligence with the best frameworks available, and start taking action on NbS today.



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ABOUT THE WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (WBCSD)

WBCSD is the premier global, CEO-led community of over 200 of the world's leading sustainable businesses working collectively to accelerate the system transformations needed for a net zero, nature positive, and more equitable future.

We do this by engaging executives and sustainability leaders from business and elsewhere to share practical insights on the obstacles and opportunities we currently face in tackling the integrated climate, nature and inequality sustainability challenge; by co-developing "how-to" CEO-guides from these insights; by providing science-based target guidance including standards and protocols; and by developing tools and platforms to help leading businesses in sustainability drive integrated actions to tackle climate, nature and inequality challenges across sectors and geographical regions.

Our member companies come from all business sectors and all major economies, representing a combined revenue of more than USD \$8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. Since 1995, WBCSD has been uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability, united by our vision of a world in which 9+ billion people are living well, within planetary boundaries, by mid-century.

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