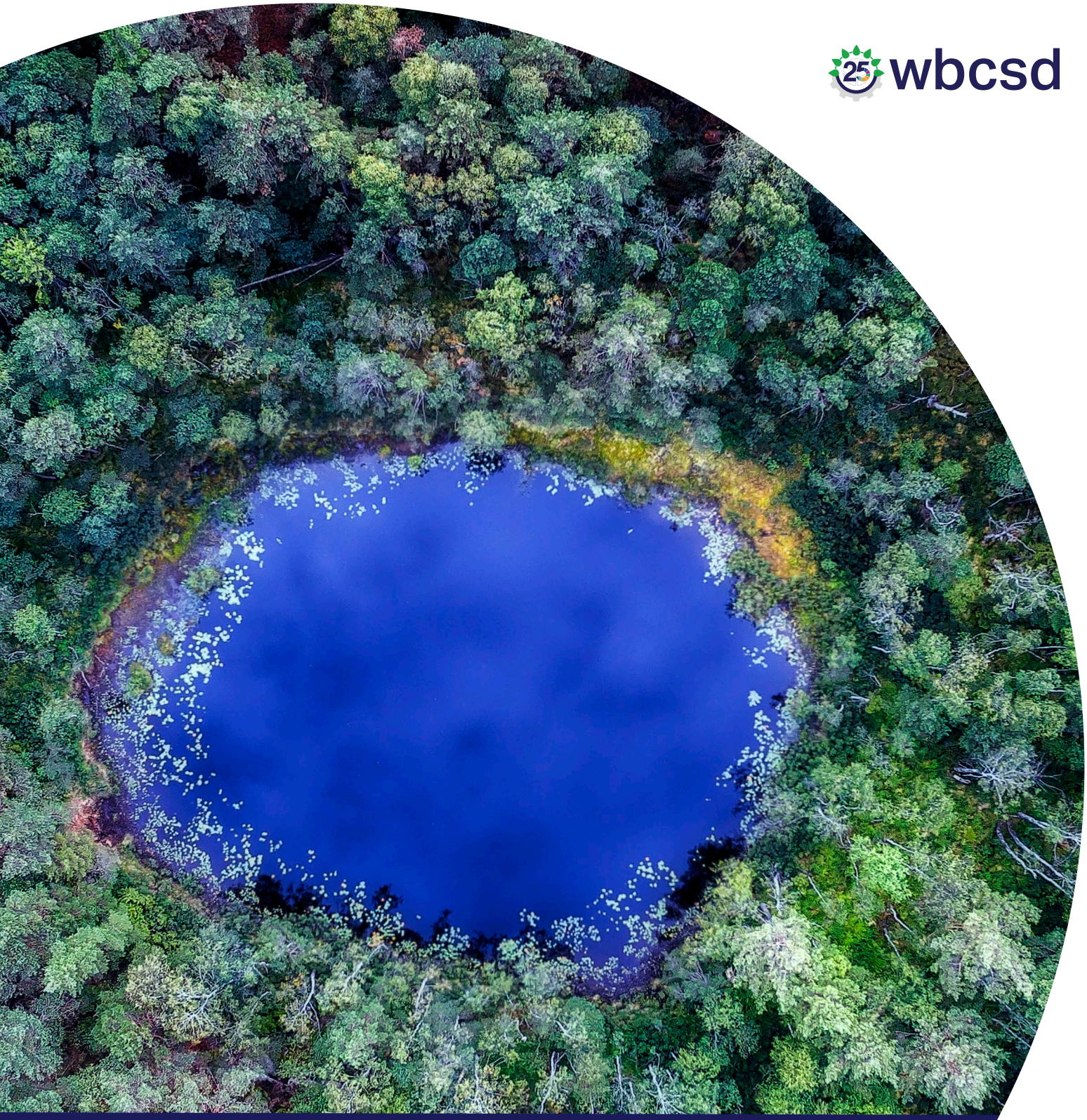

Accelerating business solutions for Climate and Nature

Report I: Mapping nature-based solutions and natural climate solutions

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Foreword

The COVID-19 pandemic and connected economic challenges have shown governments and business the necessity to transform to net-zero before 2050 and become nature-positive by 2030. Driving unemployment, malnutrition and extreme poverty to soar in many countries around the world, the pandemic has provided a stark warning of system risks, vulnerabilities and inequalities – and what's at stake if we can't mobilize radical action to reset systems for a carbon-neutral, nature-positive world.

Business has a leading role to play in forging a clear, actionable and science-based path to resetting our systems. As we navigate our recovery from the pandemic, it's becoming evident that returning to business as usual is not an option for people or planet. **Businesses and governments need to harness a green recovery that builds long-lasting resilience to the largest, most interlinked threats we face: nature loss and climate change.** We need radical, collective climate action that slashes greenhouse gas emissions and supports the growth of natural ecosystems; and we need to harness the potential of natural ecosystems, which offer a third of the emissions reductions needed to secure a net-zero, resilient world.

Despite the evidence linking the climate and nature crises, up until now humanity has mostly addressed nature loss and climate change as distinct and unrelated challenges with no coordinated plan to address them together.

To mobilize stronger collective action against the world's most urgent challenges, WBCSD has raised its membership criteria – putting action to combat the climate emergency, reverse nature loss and fight inequality at the center of what it means to be a business leader.

To help business fulfil our role in achieving this ambition, we are working with technical partners and leading businesses across the climate and nature agendas to clarify the business role in taking science-based, collective action to drive a net-zero, nature-positive economy. Our members are showing leadership by bridging the climate and nature agendas, applying lessons from the climate agenda to nature action. Business mobilization to bring a unified voice to the Climate COP (Conference of the Parties to the United Nations Framework Convention on Climate Change – UNFCCC) process brought policy-makers the necessary economic confidence to adopt an ambitious agreement – the target of limiting the global temperature increase to 1.5°C – and the Task Force on Climate-related Financial Disclosures (TCFD) has ensured alignment and transparency in reporting. This collective business leadership is also driving the nature agenda. Emulating this process for nature will be key ahead of the Convention on Biological Diversity (CBD) COP15 in 2021.

We would like to thank all our member companies and partners for their contributions to this report, a joint effort between the Nature Action and Natural Climate Solutions teams at WBCSD.

Diane Holdorf
Managing Director,
Food & Nature, WBCSD

Claire O'Neill
Managing Director,
Climate & Energy, WBCSD

Executive summary

WBCSD's Food & Nature Program and Climate & Energy Program are jointly developing a series of reports: Accelerating Business Solutions for Climate and Nature reports. These reports will guide business leaders and multi-stakeholder partners to take collective action on the inextricably linked climate and nature crises, supporting both human and planetary health. The series will span three reports that focus on the following priorities:

1. Clarifying and mapping nature-based solutions and natural climate solutions

2. Natural climate solutions best practice to ensure aligned and collective business action

3. Business guidance for sectoral implementation of nature-based solutions.

The purpose of this first report in the series is to lay out clear definitions and clarify the scope for nature-based solutions (NbS) and natural climate solutions (NCS) – to accelerate consistent and credible actions that are "good enough" and of high quality – and to map the leading initiatives in this crowded, rapidly evolving nature space.

To unlock investments and ensure that credible, high-quality projects receive funding, there must be a common understanding of what defines a nature-based solution and a natural climate solution, and how they are related. We have found that while many businesses are keen to accelerate their own participation in the developing investment class of natural climate solutions (NCS), there is still confusion and overlap over the use of the terms NCS and nature-based solutions (NbS). With a common framework, it is necessary to accelerate investments into high-quality nature-based solutions that deliver both climate solutions and nature benefits.

It is key to understand that while many nature-based solutions are likely to impact climate, not all actions have an explicit impact on carbon emissions – therefore not all of these solutions fall within the definition of natural climate solutions. On the other hand, NCS projects which are designed to deliver a reduction in carbon emissions through the power of biological sequestration can also deliver co-benefits and can help combat other societal challenges in addition to climate change.

However, when businesses design or implement NbS and NCS poorly, they can have negative impacts on nature, biodiversity and society.

The private sector plays a crucial role in adopting and scaling up these solutions. Business can address the interconnected crises of climate and nature together when they make the connection between NbS and NCS and consider NCS as nature-based solutions for climate. This is applicable if an NCS project fulfills all three elements for nature-based solutions, meaning actions that provide benefits for nature with no net loss of biodiversity, as well as delivering societal value and being based on nature. This is achievable by incorporating appropriate safeguards.

We strongly recommend that WBCSD members invest in high-quality NbS and NCS solutions that are net-positive for nature and biodiversity, and also support people and local communities. Developing and delivering high-quality NbS and NCS supports achievement of climate, nature and biodiversity goals, supporting people and local communities and provide opportunities for business to invest in positive asset class investments.

1 Introduction

The United Nations (UN) expected 2020 to be a "crunch year" for the biodiversity and climate emergencies – a make or break year in which key international meetings would set the tone and agenda for sustainability in the decade ahead, including the UN CBD (15th Conference of the Parties – COP15 – to the Convention on Biological Diversity) and the UNFCCC (26th COP to the United Nations Framework Convention on Climate Change – COP26). While COVID-19 dominated the policy agenda and led to the postponement of key UN conferences, its causes and impacts have emphasized the severity of risk societies face from the climate and nature crises and the urgent need to reverse nature loss and restore and conserve high-value ecosystems.[1] There is increasing evidence that human overexploitation of nature is a key factor causing the outbreak and spread of new diseases[2] such as COVID-19. The effective functioning of the Earth's systems is fundamentally reliant on nature. The Earth's climate has co-evolved with nature over the history of the planet[3] and they continue to shape each other through a complex pattern of interactions.[4] Climate produces the conditions for nature to thrive, while nature regulates climate through the carbon and water cycles. Land-use change is one of the largest drivers of climate change and is also the single biggest environmental driver of new zoonotic disease outbreaks, such as COVID-19.

Countries and businesses now have a unique opportunity to rebuild the world differently and "build forward better" by putting both nature and climate at the center of recovery.

Healthy societies, resilient economies and thriving businesses rely on nature, but current data show that humans are outstripping nature's ability to keep supplying its services[5] on which everyone depends. In fact, several reports over the years have highlighted nature's value to society and business:

- **Ecosystem services** worldwide are worth an estimated USD $125 trillion annually[6] and they support industries like farming, fishing, forestry and tourism;
- **Industries that rely on nature** employ around 1.2 billion people;[7]
- More than half of the world's GDP[8] – an estimated USD $44 trillion of economic value generation – is **moderately or highly dependent on nature** and its services.

Increasing awareness of nature-related risks has led leaders in business, government and civil society to rank **biodiversity loss and ecosystem collapse** as one of the top five threats humanity will face in the next 10 years,[9] along with climate change. While nature is under heavy pressure, it also holds the key to effective and scalable solutions for many societal challenges, including climate change and nature regeneration.

The Future of Nature and Business,[10] a recent report from the World Economic Forum, has identified USD $10 trillion in business opportunities and the potential creation of 395 million jobs by 2030 linked to addressing the drivers of nature loss. Investing in preserving and regenerating nature is essential to delivering co-benefits rather than trade-offs that place more pressure on natural systems.

For several years now, business has been applying **nature-based solutions** (NbS) and in particular developing **natural climate solutions** (NCS) for climate mitigation and adaptation. As governments and business develop recovery plans, momentum is building to include these solutions as part of efforts to build forward better. NbS have a key role in sequestering carbon from hard-to-abate emissions and in mitigating climate change. But it is also necessary to scale them up to protect high-value ecosystems and reverse nature loss. These solutions will be a focus area in UN conferences: for climate in the UNFCCC COP26 in Glasgow, UK, for biodiversity at the CBD COP15 in Kunming in China, to ensure land degradation neutrality at the Convention to Combat Desertification (UNCCD) COP15 in Bonn, Germany, and to help transform food systems (which significantly contribute to both drivers of, and risks from, climate change and nature loss) at the UN Food Systems Summit in New York, USA.

The growing interest in NbS has highlighted confusion around the aims and objectives of the different actions, initiatives, platforms and conventions, and their relationships. In addition, while solutions based on nature have great potential to address societal challenges, the lack of clear, workable, science-based, and commonly accepted definitions can limit the scaling up of such much-needed approaches and potentially create unintended consequences with respect to other societal challenges.

In response to requests from members and partners, we are launching a series of reports to support companies in **Accelerating Business Solutions for Climate and Nature**, a joint collaboration between our Nature Action and Natural Climate Solutions teams. The series will focus on nature-based solutions and natural climate solutions, including definitions, best practices and sectoral guidance. The purpose of this first report, **Mapping nature-based solutions and natural climate solutions**, is therefore two-fold, to:

- Clarify the concept and scope of nature-based solutions and support the alignment of natural climate solutions with nature-based solutions in order to accelerate investments at scale.

- Help companies navigate the nature and climate agenda by mapping the key initiatives, platforms and conventions for collective action.

Ultimately, business and stakeholders must come together to accelerate actions and investments in solutions that are good for climate and nature, as well as for people and economies.

2 Defining nature-based solutions and natural climate solutions

Nature can provide solutions to many societal challenges, such as delivering clean water or defending against coastal erosion, floods and other natural disasters. Nature-based solutions (NbS) have shown particularly promising results in addressing multiple societal challenges, such as climate change and nature loss, through protection, sustainable management and restoration of both natural and modified systems.

NbS commonly yield climate change mitigation benefits by sequestering emissions, but can also provide adaptation and resilience benefits. For example, research[11] indicates that climate solutions based on nature could deliver up to a third of the emissions reductions needed between now and 2030 to limit global warming to 1.5°C. Additionally and importantly, these solutions have the power to address nature loss directly, generating benefits for biodiversity and ecosystem services, and therefore people. There is a critical need to scale up the implementation of impactful solutions for an equitable, climate-neutral and nature-positive recovery.

To achieve scale and guide investments in nature-based solutions, businesses must overcome several barriers, including the lack of clarity on both the risk faced by different sectors as well as opportunities, and a means to measure impact and communicate to different stakeholders. As the public and private sectors investigate solutions that contribute to a post-COVID-19 recovery, they must include NbS to achieve corporate goals, particularly climate goals aimed at net-zero emissions, in addition to their decarbonization efforts.

However, the lack of clear consensus on what constitutes a natural climate solution, what defines a nature-based solution, and the minimum expected performance from each, is slowing investment and potentially limiting the supply of credible projects. If the minimum expectation is set too low, it could result in a large quantity of projects that deliver in one area, such as climate, but fail to protect or enhance biodiversity and in turn have significant adverse impacts (e.g., loss of water resources or adverse societal impacts due to changes in income sources).

Conversely too, exacting an expectation may limit the number of investment opportunities developed.

To overcome this, business needs a common framework and aligned definitions for natural climate solutions and the broader range of nature-based solutions.

This report aims to promote the development of, and investments in, a large volume of high-quality NbS projects by providing clarity on their definition, scope, value and performance. In particular, business needs to clarify the relationship between nature-based solutions focused on climate and those delivering other societal values to maximize the potential benefit that solutions can deliver. There is a need for alignment on a simple, workable, science-based set of definitions.

Below is a synthesis of leading definitions of nature-based solutions and natural climate solutions, which provides a clear framework to drive action on these concepts.

Nature-based solutions (NbS)[12]

Nature-based solutions are actions based on functioning biological ecosystems, such as forests, grasslands, agricultural systems, rivers, lakes and oceans. Several leading institutions have developed their own definitions of NbS and associated interventions.

The European Commission defines NbS as "solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions."

The Organization for Economic Co-operation and Development (OECD) proposes that "NbS are measures that protect, sustainably manage or restore nature, with the goal of maintaining or enhancing ecosystem services to address a variety of social, environmental and economic challenges."[13]

In order to provide a common simple, workable, and science-based definition, the International Union for Conservation of Nature (IUCN) launched a two-year consultation process building on a number of existing models and approaches. More than 1,000 individuals participated, of which one-sixth represented the private sector, including WBCSD and the World Economic Forum. The resulting NbS definition, endorsed by WBCSD, is:

"Actions to protect, sustainably manage and restore natural or modified ecosystems, that address societal challenges[14] (e.g., climate change, food and water security or natural disasters) effectively and adaptively, simultaneously providing human well-being and biodiversity benefits."

All definitions share three common elements:

1. The actions are **based on nature** – involving protection, sustainable management or restoration of natural resources.
2. They deliver **value to society** by addressing societal challenges (e.g., biodiversity loss, climate change).
3. They benefit nature by preserving and **enhancing biodiversity and ecosystem services.**

The IUCN Global Standard for NbS also clearly states that NbS simultaneously provide human well-being and biodiversity benefits.

Hence, WBCSD encourages its members to invest in NbS that ensure, at a minimum, no net loss of nature and biodiversity, as well as no net harm for people. Business should correctly identify and mitigate any risk of adverse effects on these two dimensions through appropriate safeguards. High-quality NbS projects and investments therefore provide credible human well-being and biodiversity benefits.

It is also often important to understand what a definition specifically excludes. To define the scope of nature-based solutions, IUCN has identified the following categories, which are excluded from the scope of NbS:

Nature-derived: Wind, wave and solar energy come from nature. In this case, they are solutions to help fulfil our low-carbon energy needs through production methods derived from natural sources. These energy sources come from the natural world but are not directly based on functioning ecosystems.

Nature-inspired: Nature inspires the innovative design and production of materials, structures, and systems modelled on biological processes. For example, biomimicry is a practice that learns from and mimics the strategies found in nature to solve challenges.

These designs take inspiration from nature – such as specially made sticky gloves that mimic the wall climbing adaptations of geckos. However hey are not based on functioning ecosystems.

Natural climate solutions (NCS)

The article "Natural climate solutions" published in the Proceedings of the National Academy of Sciences[11] (PNAS) in 2017 and led by The Nature Conservancy and 15 other institutions, defines NCS as: "Conservation, restoration, and/or improved land management actions to increase carbon storage and/or avoid greenhouse gas emissions across global forests, wetlands, grasslands, and agricultural lands."

Therefore, NCS fall under the umbrella of nature-based solutions but focus explicitly on addressing climate change. Given the focus on conservation, restoration and improved land management, natural climate solutions are likely to have adaptation as well as mitigation benefits.

This definition is based on a limited range of well-researched, proven types of NCS and therefore does not include other examples, such as in urban or marine environments. It may therefore evolve to also include additional emerging types of NCS.

The definition was part of an academic paper, rather than for practical guidance, and as such included no explicit requirement for NCS to benefit nature or biodiversity. However, given the focus on conservation, restoration and improved land management, nature and biodiversity benefits are likely to occur together with co-benefits impacting other societal challenges. High-quality NCS projects and investments therefore provide credible co-benefits for nature and communities, including through conservation, restoration and improved land management.

Alignment between NbS and NCS:

- While many NbS are likely to have an impact on climate, either directly or indirectly, not all of them have an explicit impact on carbon emissions (e.g., coral reef protection that aims to reduce human activities that degrade coral reefs, groundwater recharging, sustainable fishing). **As a result, not all NbS fall within the definition of NCS**.

- NCS typically impact societal challenges other than climate change – these impacts beyond primary NCS goals are "co-benefits". For instance, a mangrove conservation project would primarily address climate change, disaster risk prevention, environmental degradation and biodiversity loss, but may also have co-benefits for other dimensions, such as food security (by providing shelter to local fish species) and economic and social development (by supporting sustainable fisheries and/or ecotourism).

- Certain NbS and NCS, when poorly designed or implemented, could have negative impacts on nature, biodiversity and society. For example, an afforestation project using monoculture or introducing exotic/non-native species can help sequester carbon emissions, but can also have adverse impacts on biodiversity, or increase the risk of natural disasters such as wildfire.

Ideally, any solution (whether NbS or NCS) should be positive for nature, climate and society, but at a minimum good for one of these societal challenges and not negative for the others.

- One way to align and connect NbS and NCS is to consider NCS as nature-based solutions for climate. This would be applicable if NCS projects fulfilled all three elements for nature-based solutions, i.e., they provide benefits for nature with no net loss of biodiversity, as well as delivering societal value and being based on nature. It is possible to achieve this by incorporating the appropriate safeguards.

The NCS Alliance, co-hosted by the World Economic Forum and WBCSD, scales up investments in NCS. One of its objectives is specifically to ensure that all new investments fulfil strict criteria to achieve co-benefits.

Summary

Business has a critical role to play in accelerating projects and investments that support climate, nature and people. While the risks of inaction are significant and well documented, the benefits to both business security and growth are very compelling.

To unlock investment and ensure credible, high-quality projects receive funding, there must be a common understanding of what defines a nature-based solution and a natural climate solution. Nature-based solutions (NbS) are actions based on functioning ecosystems that deliver value to society by addressing societal challenges and benefit nature by enhancing biodiversity and ecosystem services.

Natural climate solutions (NCS) are nature-based solutions for climate – meaning solutions specifically aimed at delivering climate benefits.

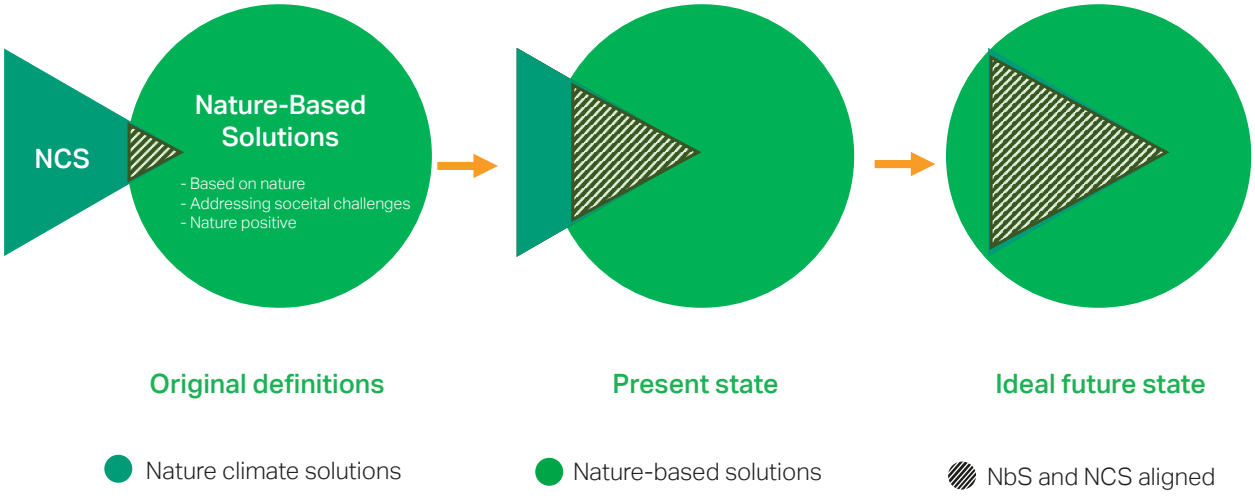
At a minimum, both nature-based solutions and natural climate solutions should ensure zero net loss for biodiversity. We strongly recommend that WBCSD members invest in high-quality NbS and NCS solutions that are net-positive for nature and biodiversity and that also support people and local communities.

Regulatory and investment criteria that promote or reward high-quality NbS and NCS over lower quality single benefit options are also necessary. Developing and delivering high-quality NbS and NCS will help drive a race to the top and support the achieving of nature and biodiversity goals. It will also provide opportunities for business to invest in positive asset class investments.

Table 1: Attributes of NbS and NCS

Attribute	NbS	NCS
Based on functioning ecosystems	Yes	Yes
Deliver benefits by addressing societal challenges	Yes – including climate, water, disaster prevention, food production and health benefits	Yes – but focused on climate benefits
Positive for biodiversity and ecosystem service	Yes	Not by original definition, but encouraged as good practice

Figure 1: The aim for the evolution of NbS and NCS



3 Mapping the nature agenda

The 2019 Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) lists the key drivers of biodiversity loss in the following order: land-use change, depletion/over-exploitation of resources, climate change, pollution, and the introduction of alien and invasive species.

Nature-based solutions provide a promising path to a more equitable, carbon neutral and nature-positive future but they are only part of the current landscape of targets, initiatives and conventions addressing nature and biodiversity. Many initiatives focusing on nature have emerged over the years. In this chapter we highlight the most relevant ones for business.

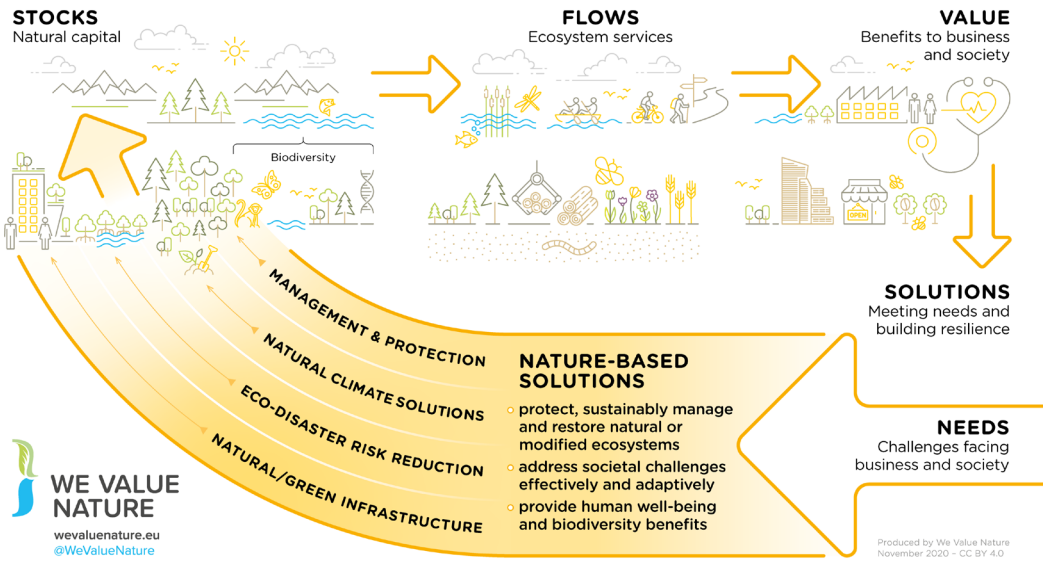
Valuing nature

To understand the nature agenda and start adopting NbS, businesses should explore their relationship with nature, including dependencies and related risks and opportunities. Using economic values in the assessment can also help to integrate this information into decision-making; but depending on the needs, a qualitative or quantitative valuation exercise may suffice. The Natural Capital Coalition's Natural Capital Protocol, a generally accepted framework for companies to assess natural capital, brought together some 40 partners to work on a single and harmonized definition for "natural capital" (see box) that encompasses the core themes and messages of its previous iterations.

Natural capital is the stock of renewable and non-renewable resources (e.g., plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.[16]

Natural capital risks and opportunities are becoming increasingly visible and businesses need to understand and manage them, for example by implementing nature-based solutions as illustrated in Figure 3. A natural capital assessment can be a useful step for a company to understand its relative risks and dependencies on nature in order to inform better decisions, which in turn will increase resilience and reduce uncertainty.

Figure 2: Natural capital and nature-based solutions[15]



Courtesy of We Value Nature.

Targets for nature

Apex goals. As we work to develop frameworks, targets and tools to address nature loss, it is possible to learn from parallel experience in the climate change debate. One key asset in dealing with climate change has been alignment on an overarching "apex goal" of limiting the global temperature rise to 1.5°C. So far, the nature agenda has lacked an equivalent to the 1.5°C goal but several NGO and business organizations have recently proposed an apex goal of zero net loss from 2020, nature-positive by 2030 and full recovery by 2050 to provide the level of ambition needed to preserve biodiversity, limit land conversion and safeguard oceans.

Science-based targets. In the climate space, there has been an increase in companies announcing climate commitments and establishing ambitious targets in line with climate science across sectors. The Science Based Targets Initiative (SBTi), a joint initiative by the Carbon Disclosure Project (CDP), the UN Global Compact (UNGC), the World Resources Institute (WRI) and the World Wildlife Fund (WWF) has supported this progress with the intention of increasing corporate climate action ambitions by mobilizing companies to set greenhouse gas emissions reduction targets consistent with the goals of the Paris Agreement – to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C.

Similarly, the **Science Based Targets Network** (SBTN) is expanding this exercise to nature (including, on top of climate: land, water, biodiversity and oceans) and for cities in addition to companies. To this end, the SBTN has developed Interim Guidance to support companies that wish to advance commitments and start testing science-based targets for nature. In many cases, companies are aware of their impact and dependencies on nature and the actions required; but as with SBTi, the targets for nature aim to determine "how much is enough" on nature action to reverse nature loss.

However, unlike the climate agenda, the nature agenda does not yet have an agreed apex target that can speed up the implementation and adoption of science-based targets for nature. But companies are stepping up to test the interim guidance.

Task Force on Nature-related Financial Disclosures (TNFD). This task force will complement the Task Force on Climate-related Financial Disclosures (TCFD), to give investors, lenders and insurers a holistic picture of the nature-climate crisis. Nature-related risks remain largely absent from financial institutions' radar due to complexity in pricing and valuing the economic dividends of natural capital. For this reason, WBCSD has joined the Informal Working Group (IWG) established to tackle this problem with government, financial institutions, business and experts.

Key global policy conventions

The Rio Conventions

Established by the United Nations during the Earth Summit held in Rio de Janeiro, Brazil, in 1992, the Rio Conventions, individually and collectively, act as catalysts for action on adaptation at all levels.

These conventions form a United Nations action plan to promote sustainable development.

Table 2: Key global policy conventions

Convention to Combat Desertification (UNCCD)	Convention on Biological Diversity (UNCBD)	Framework Convention on Climate Change (UNFCCC
Objectives		
The objective of this convention is to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa. Achieving this objective will involve long-term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level.	The objectives of this convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising from the use of genetic resources. The Global Business and Biodiversity Partnership brings together national platforms to promote private sector actions to deliver the aims of the convention.	The ultimate objective of this convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a period sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.
Role of nature-based solutions		
NbS have clear potential to help the rehabilitation, conservation and sustainable management of land and water resources,	NbS are a key part of the Post-2020 Global Biodiversity Framework and are the subject of draft Target 10: By 2030, ensure that, nature-based solutions and ecosystems approaches contribute to regulation of air quality, hazards and extreme events and quality and quantity of water.	COP26 in 2021, dubbed the Nature COP, will have a specific focus on NbS for climate. The aim will be to accelerate investments in NbS, which is a priority for the host UK Government.

The CBD Post-2020 Global Biodiversity Framework and the UNFCCC COP26 outcomes will be key in this area. In September 2020, the United Nations Convention on Biological Diversity (CBD) published the fifth Global Biodiversity Outlook report (read our business summary), which warns starkly that the world has so far failed to halt the destruction of wildlife and life-sustaining ecosystems. The new framework is therefore a unique opportunity to create change and set the overarching agenda, with accompanying targets, for the world to deliver on nature for the coming decade, as will the CBD focus on mainstreaming nature and biodiversity across governments, business and society. Business for Nature has published a business guide to the United Nations Convention on Biological Diversity (CBD) to help businesses understand a bit more about the UN CBD process, explaining why this particular meeting (COP15) is so important and relevant for business and how companies can engage.

Key external platforms & initiatives

Relevance to NbS: Engaging companies in commitments that contribute to reversing biodiversity loss globally.

Outline: Act4nature is the continuation of act4nature 2018 for companies with international activities. French association Entreprises pour l'environnement (EpE) leads it under a multi-stakeholder steering committee and, though aimed at global actors, Act4nature is a French collective initiative run by French partners.

Relevance to NbS: Promoting policy recommendations by bringing a collective business voice to the table.

Outline: Business for Nature is a global umbrella coalition bringing forward-thinking business and conservation organizations together, with the aim of demonstrating and amplifying a powerful business voice that calls for policies that place nature at the heart of the global economy.

Relevance to NbS: Supporting companies to understand their relationship with nature (natural capital) and the communities (social and human capital) on which their activities rely.

Outline: The Capitals Coalition unites the Natural Capital Coalition and the Social & Human Capital Coalition to transform the way decisions are made by including the value provided by nature, people and society.

Relevance to NbS: Championing nature.

Outline: Champions for Nature, the overarching leadership community of the World Economic Forum's Platform for Accelerating Nature-Based Solutions, is a community of leaders promoting the restoration, conservation and sustainable management of the planet to lead the way to a nature-positive future.

Relevance to NbS: Clarifying the business case for nature, providing insights needed to develop practical roadmaps to address the most important drivers of nature loss, and building a nature-positive future.

Outline: The Nature Action Agenda (NAA) is a multi-sector movement catalyzing economic action to halt biodiversity loss by 2030 and enable humans to live in harmony with nature.

Relevance to NbS: Building an effective and scalable carbon market that enables natural carbon sinks while safeguarding nature.

Outline: Convened by the World Economic Forum and WBCSD, the Natural Climate Solutions Alliance is a multi-stakeholder group committed to operationalizing principles so that the activities in the business sphere of influence deliver NCS with integrity, at scale.

Relevance to NbS: Developing and aligning nature-based business solutions for collective action.

Outline: One Planet for Business and Biodiversity (OP2B), a cross-sector coalition that includes businesses from across the value chain, aims to drive transformational systemic change that restores biodiversity, with a specific focus on agriculture. The coalition also engages with institutional and financial decision-makers and looks to develop and promote policy recommendations for the 2021 CBD COP15 framework.

Relevance to NbS: Developing business guidance that contributes to the establishment of science-based targets for nature.

Outline: Responding to the business demand to set targets for the whole Earth system, the Science Based Targets Network looks to develop methods and resources that will enable companies and cities to set science-based targets for biodiversity and freshwater, land and ocean systems across their value chains.

Relevance to NbS: Creating awareness and enabling knowledge-sharing across sectors.

Outline: Boosting the work of the Natural Capital Coalition, an international collaboration to harmonize the understanding of natural capital, We Value Nature is a campaign that aims to make valuing nature the new normal across business in Europe by addressing barriers to the uptake of natural capital approaches, including nature-based solutions and green infrastructure.

4 WBCSD initiatives

We encourage our members to engage in the NbS space by:

- Joining some of the existing efforts to learn more and help build the momentum around NbS.
- Integrating NbS into their own supply chains and transforming their business models while improving their environmental and societal impact thanks to NbS.
- Investing in NbS as part of their mitigation strategies, to offset any remaining negative impact.

We are working with business, NGOs and policy-makers to provide a clear and actionable path to being nature-positive by 2030 and climate neutral by 2050. We do so by creating and hosting coalitions and projects specifically aimed at:

- Promoting policy recommendations by bringing a collective business voice to the table.
- Developing guidance and contributing to science-based targets and frameworks.
- Developing and aligning nature-based business solutions for collective action.
- Mobilizing business leadership to push business action forward.
- Creating awareness and enabling knowledge-sharing across sectors.

Because it is not possible to achieve climate commitments if companies do not address nature loss, we are also continuously encouraging our member companies to take further action. This is part of our new membership criteria, which now also asks companies to include nature in their commitments, in addition to climate, and:

"Set ambitious, science-informed, short- and mid-term environmental goals that contribute to nature/biodiversity recovery by 2050 and report progress annually in standard, external company communications."

The nature and climate agendas are cross-cutting; for that reason, we are bringing together our members across sectors to advance the establishing of targets and to scale up the implementation of NbS and NCS via three key projects:

Nature Action

This project aims to establish a group of leading companies across sectors applying science-based targets for nature and NbS that have a demonstrable positive impact on nature and biodiversity in line with the proposed apex goal for nature.

This cross-cutting project brings together businesses from the three key systems required for transformation and builds on the key transitions identified by the New Nature Economy Report Series published by the World Economic Forum:

- Food, land and ocean use
- Infrastructure and built environment
- Energy and extractives

Natural Climate Solutions

Research shows that these solutions could deliver 37% of the emissions reductions needed to limit global warming to 2°C. However, despite their massive potential, they only make up 1% of the climate conversation. We're changing that by boosting awareness across the business community and helping the private sector invest in nature.

This work is part of the Natural Climate Solutions Alliance convened by the World Economic Forum and the World Business Council for Sustainable Development.

SOS 1.5

Companies around the world are stepping up their climate commitments: setting targets to reduce emissions and align with the 1.5°C target for a climate-safe world. Setting this ambition is critical but it's only step one. Businesses need to match their ambition with robust, actionable strategies to accelerate the systems transformation needed. Our SOS 1.5 project aims to support companies from all sectors to stay within the 1.5°C safe operating space.

SOS 1.5 is an action initiative supported by the We Mean Business Coalition.

This includes the work of the Agriculture for 1.5 work stream in WBCSD's Scaling Positive Agriculture Project

5 Key takeaways

Overcoming obstacles to financing nature-based solutions

It is estimated that major ecosystem conservation and restoration work could contribute up to 37% of the solutions needed by 2030 to reduce greenhouse gas emissions and stabilize global warming to below 2°C.[11] However, the amount of public finance spent on NbS for climate, as a percentage of all climate finance, was only 3% in 2015-2016 and only 8% in 2017-2018, leading to claims that NbS is a forgotten solution. This NbS funding that has occurred to date has mainly been for climate, rather than the broader benefits such as biodiversity that NbS can deliver.

Nature protection and restoration have suffered from a chronic lack of financial resources: estimates show that there is currently an annual funding gap for nature of USD $711 billion between now and 2030 (less than 1% of global GDP).[17] The current slow growth in NbS investment will not unlock the full potential of nature-based solutions.

To attract more capital to NbS projects, investors need to better understand and internalize the material risks and opportunities associated with nature. We are contributing to the development of tools led by the Task Force on Nature-related Financial Disclosures that will help make these risks visible and make it possible to measure and report.

Business is stepping up its climate & nature ambitions

NbS and NCS are affordable, scalable and available right now. Business plays a key role in adopting and integrating these solutions into their core activities as a way to do good for the planet, as well as people and prosperity. Many WBCSD members have announced ambitious actions, using science-based targets, to contribute to global climate, biodiversity and development goals:

- Business for Nature has identified over 1,200 examples of companies taking action for nature, including many WBCSD members.
- Walmart recently pledged to achieve zero emissions by 2040 without carbon offsets, while also committing to protect and restore at least 50 million acres of land and 1 million square miles of ocean by 2030.
- Microsoft pledged to offset all its historical emissions and become net-negative by 2030.
- Unilever is setting aside EUR €1 billion to fund nature regeneration projects, including achieving a deforestation-free supply chain, promoting regenerative agriculture, and transitioning to biodegradable ingredients by 2023.

For more commitments from our members, including Nestlé, GSK, LafargeHolcim and Shell, please refer to our website.

Scaling up NCS and NbS

Despite increasing momentum for NbS and NCS, they have yet to achieve their full potential. The Accelerating Business Solutions for Climate and Nature report series aims to support business in overcoming challenges by (1) identifying best practices for natural climate solutions to ensure aligned and collective business action and (2) developing sector guidance for key sectors to help companies deploy nature-based solutions that have a positive impact on nature while also being good for business.

Appendix

I. Examples of nature-based solutions[18] (non-exhaustive)

CATEGORY	NATURE-BASED SOLUTION	DESCRIPTION
Ecosystem restoration approaches	Reforestation	Replanting forests and woodlands that have been depleted, usually through deforestation
	Coastal wetland restoration, incl. mangroves	Restoring wetlands to replace lost vegetation and wildlife and/or repair natural flow of water
	Peat restoration	Restoring peat soils to prevent further breakdown of stored plant material
	Coral reef protection	Reducing human activity that degrades coral reefs
	Forest landscape restoration	Conservation and restoration of forest landscapes to sequester carbon and protect and increase biodiversity.
Issue-specific ecosystem-related approaches	Improved plantations	Extending the rotation harvest cycle of timber plantations to maximize carbon absorption and timber yields
	Trees in cropland	Planting trees for windbreaks, shelter for crops and erosion prevention while reducing carbon emissions
	Afforestation	Establishing a forest or stand of trees in an area where there was no previous tree cover
	Deforestation avoidance	Keeping trees instead of removing them
	Regenerative agriculture	Producing crops while maximizing environmental conservation: minimum soil disturbance, maintenance of permanent soil cover, diversification of plant species
	Avoided fuelwood harvest	Avoiding removal of trees for fuelwood by replacing fuel sources
	Grazing optimization	Improving plant species diversity by managing grazing
	Nitrogen removal	Ensuring nitrogen applied to fields does not exceed the amount that can be absorbed and timing application to avoid unnecessary runoff and reapplication
	Biochar	Adding biochar to croplands to improve soil health and help trapped carbon decompose
	Improved rice cultivation	Alternately wetting and drying rice fields or draining flooded fields mid-season to reduce time decaying plant material is submerged to reduce methane emissions
	Seaweed aquaculture	Cultivating seaweed to extract dissolved nutrients to enhance environment for marine organisms
	Sustainable fishing	Harvesting fish at rates that do not transgress sustainable boundaries
Infrastructure-related approaches	Groundwater recharge	Adding water to surface water to become groundwater
	Green infrastructure	Using natural systems instead of conventional infrastructure to deliver services such as flood control, water purification, etc.

Ecosystem-based management approaches	Natural forest management	Managing forests in a way that is commercially viable but maximizes biodiversity, soil health and landscape value
	Fire management	Planning and preventing destructive fires and using fire to attain forestry, wildlife and land-use objectives
Ecosystem protection approaches	Avoided peat impact	Avoiding emissions from above- and below-ground biomass and soil carbon due to avoided degradation and/or loss of freshwater wetlands
	Avoided coastal impact	protecting coastal areas and ecosystems to avoid erosion, with associated carbon emissions and biodiversity loss, and protect ecosystem services
	Avoided grassland conversion	Avoiding soil carbon emissions by avoiding the conversion of grasslands (including savannas and shrublands) to cropland

II. Existing initiatives related to natural climate solutions (non-exhaustive)

High-level initiatives	
Initiative	**Focus**
Trillion Trees	Connect, empower and serve a multi-stakeholder community to conserve, restore and reforest a trillion trees by 2030
Nature Action Agenda	Catalyze economic action and policy ambition to halt biodiversity loss and transition to a nature-positive economy; and provide thought leadership through the New Nature Economy report series
Champions for Nature	A community of leaders disrupting business-as-usual practices to lead the way to a nature-positive global economy and to halt nature loss by 2030; brings together progressive leaders from the public and private sectors, civil society and academia working to reset humanity's relationship with nature
Together with Nature principles	Leading NGOs and scientists, facilitated by Christiana Figueres, come together to develop the Together With Nature Principles – common principles with which all organizations investing in nature-based solutions can align
Nature4Climate	Communicate the immediate benefits of NbS – societal, environmental and economic – to decision-makers in both the public and private sectors

Corporate accounting of agriculture, forestry, and other land use (AFOLU) sources and sinks	
Initiative	**Focus**
GHG Protocol AFOLU Working Group	Provide sector-specific guidance to help users implement the GHG Protocol Policy and Action Standard in the agriculture, forestry, and other land use (AFOLU) sector

Commodity-driven deforestation	
Initiative	**Focus**
Tropical Forest Alliance	Reduce and ultimately halt commodity-driven deforestation and transform supply chains to ensure sustainable livelihoods and a forest positive future
Soft Commodities Forum	Work together to secure deforestation-free soy supply chains in the Cerrado

II. Existing initiatives related to natural climate solutions (non-exhaustive)

NCS for carbon markets and carbon offsets	
Initiative	**Focus**
Carbon Pricing Leadership Coalition (CPLC) – NBS workstream	Carbon sinks with active participation of key countries (likely focus Latin American countries) – with engagement from governments, NGOs, the World Bank and private sector members
Natural Climate Solutions Alliance	Identify opportunities and barriers to investments into carbon finance, to unlock greater financial flows for nature and increase climate mitigation and planetary resilience
Oil and Gas Climate Initiative – NCS workstream	Evaluate opportunities where collective effort might positively influence the growth of NCS credit markets and strengthen members' social license to participate as developers, marketers and consumers of nature-based offsets
Markets for NCS initiative	Develop market mechanisms that enable NBS within compliance schemes and new market mechanisms (ITMOs) in priority countries (Canada, Mexico, Colombia, Peru, South Africa, Singapore, Australia)
Convening on Carbon Offsets for Nature-Based Solutions (CIFF)	Listen to the arguments for and against offsetting and use them to drive quality in the market; will be data driven and will resource the necessary research and convening to address areas of conflict
Forest Solutions Dialogue	Climate Advisors and EDF in a coalition with negotiators to determine the role of forests in the Paris Agreement
UK GRI Taskforce Recommendation report	Consider how to reduce the climate and environment effects of key UK supply chains
US Climate Alliance Natural & Working Lands Challenge	Identify best practices and policy pathways for protecting and enhancing resilient carbon sinks, safeguarding the communities, economies and ecosystems that depend on them
Forest Climate Working Group	Create projects to create healthy and resilient forests in the US that deliver essential benefits for climate, people, water and wildlife using forestry innovation, place-based partnerships to plant and restore forests, and movement building

II. Existing initiatives related to natural climate solutions (non-exhaustive)

Carbon markets (non-NCS specific)	
Initiative	**Focus**
Environmental Defense Fund workstream – Mobilizing voluntary carbon markets to drive climate action	Open to NGOs; five corporations observe this effort that aims to develop recommendations that incentivize credible and Paris-aligned climate action by non-state actors and inform guidance and criteria for high-quality carbon markets that contribute to global climate goals
Race to Zero	A global campaign to rally leadership and support from businesses, cities, regions, investors for a healthy, resilient, zero-carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth
IETA UMD Art 6 Modelling	Has the potential to reduce the total cost of implementing nationally determined contributions (NDCs) by more than half (~USD $250 billion/year in 2030), or alternatively facilitate the removal of 50% more emissions (~5 gigatonnes of carbon dioxide per year [GtCO2/year] in 2030), at no additional cost
High Tide Foundation Carbon Credit Guide	Provide companies and organizations with information about carbon offsets and how to use them in voluntary greenhouse gas (GHG) reduction strategies
SBTi Net-Zero Guidance	Make recommendations about removals; an updated version is due soon
Net-Zero Asset Owner Alliance	Climate Advisors and EDF in a coalition with negotiators to determine the role of forests in the Paris Agreement
Transform to Net Zero	Deliver guidance and business plans to enable a transformation to net-zero emissions, as well as research, advocacy and best practices to make it easier for the private sector to set ambitious goals and deliver meaningful emissions reductions and economic success
CLUA/Climate Works Carbon Credit Rating Agency	Scope and design an entity to enable carbon credit purchasers to readily compare performance against environmental, social and governance (ESG) criteria across the wide variety of credits available in the marketplace
WWF Carbon Credit Buyers Guide	Provide practical and trusted guidance to help carbon credit buyers navigate the complicated landscape and enable them to identify high-quality carbon credits
Taskforce on Scaling Voluntary Carbon Markets	The Taskforce will take stock of existing voluntary carbon markets and efforts to grow these markets, identify key challenges and impediments, build consensus on how best to scale up voluntary carbon markets and finally, present a blueprint of actionable solutions.

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CONTRIBUTORS

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COORDINATION

WBCSD: Diane Holdorf, Claire O'Neill, Peter White, Erwan Saouter, Maria Campos, Chris Connifer, Peter Beare, Sylvain Maibach, Sophie Hall

CONTRIBUTING STAKEHOLDERS

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DISCLAIMER

This publication has been developed in the name of WBCSD. Like other WBCSD publications, it is the result of a collaborative effort by members of the secretariat and senior executives from member companies. A wide range of members reviewed drafts, thereby ensuring that the document broadly represents the perspective of the WBCSD membership. Input and feedback from members and interviewees was incorporated in a balanced way. This does not mean, however, that every member company or interviewee agrees with every word.

ABOUT NATURE ACTION

The Nature Action project is working with external partners and members to: (1) support the development of science-based targets for nature; (2) provide guidance on nature-based solutions; and (3) showcase business leadership in key nature and climate events with consistent policy enablers. This cross-sector project supports members as they engage in and act on this agenda while building business alignment, solutions and collective action in three systems: food, land and ocean use; infrastructure and the built environment; and energy and extractives.

ABOUT WBCSD

WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. We help make our member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies. 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 where more than 9 billion people are all living well and within the boundaries of our planet, by 2050.

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Maison de la Paix
Chemin Eugène-Rigot 2B
CP 2075, 1211 Geneva 1
Switzerland
www.wbcsd.org