WHY CORPORATE INVESTMENTS IN NATURE ARE URGENTLY NEEDED

The science is clear – to limit global temperature rise to 1.5°C we must halve emissions by 2030, and reach net zero by 2050 in order stay within the remaining global carbon budget, which is now well under 400 billion tonnes for a 67% chance to keep 1.5°C in reach.[1] This translates to reducing emissions by roughly 7% annually over the next three decades – a so-called '*carbon law*' that companies and governments alike must embed at the heart of their climate strategies.

Building on the *carbon law*, the Race to Zero has developed criteria for companies to align decarbonization efforts with the Paris Agreement, and the Science Based Targets initiative (SBTi) has further established a standard for companies to set net zero targets to align their value chain emissions reductions with a 1.5°C pathway. While the Race to Zero criteria and SBTi's Net-Zero Standard represent positive momentum, companies should be careful to avoid 'value chain tunnel vision' that distracts from the overarching goal of achieving societal net zero.

Indeed, a single-minded goal of achieving corporate net zero would miss the forest for the trees. The north star of any corporate climate strategy should not simply be value chain decarbonization, but rather to contribute to efforts to stay within the global carbon budget to limit global temperature rise to 1.5°C. The atmosphere, after all, does not recognize climate achievements that are confined to individual supply chains or operations. An imminent risk exists that we will continue to see atmospheric emissions rise even if companies are able to reach the goals of their science-based target commitments.

Unless corporate investments in nature are mobilized at scale, our climate goals will very likely soon be out of reach. This briefing explores five key reasons why companies have an imperative to integrate robust investments beyond their value chains – and particularly those in nature – into their climate strategies:

- Every corporate net-zero commitment is dependent on halting nature loss
- We won't reach our global climate goals without nature
- Existing value-chain efforts are insufficient to address all nature-related emissions
- There is a massive finance gap for nature
- If just 1,700 companies compensated for 10% of their emissions each year as they work towards their net zero goals – alongside reducing their own emissions – we would mobilize 30 Gt of nature-based climate solutions, preserving more than 10% of our remaining 1.5°C carbon budget.[2]

Every existing corporate net zero target depends on nature

A fundamental component of all climate models is the underlying assumption that natural carbon sinks will remain intact. Biological processes in natural land sinks – photosynthesis in pristine forests, grasslands and wetlands that aren't impacted by human activities –

[1] Friedlingstein, P. et al. 2020: Global Carbon Budget 2020. Earth Syst. Sci. Data

[2] Assuming approx. 250 Gt budget remaining (400 Gt budget in January 2020 for 67% probability, ~55 Gt net emissions annually since)

currently provide net carbon removals of 12.5 Gt CO_2 equivalent per year, enough to absorb 35% of all emissions from global waste, energy and industry.

Climate models – including those underpinning corporate net zero targets – assume that these natural carbon sinks will remain intact and continue to absorb emissions from the atmosphere. While nature's carbon absorption is treated as a 'free rider' in the climate science underpinning corporate commitments, the troublesome reality is that nature is declining at an unprecedented rate.[3] If nature loss continues unabated, the capacity for natural land sinks to absorb CO_2 will rapidly decline and the science underpinning existing climate targets will become obsolete.

By continuing on the current trajectory without stemming the tide of global nature loss we will soon meet critical tipping points: coral reefs will die off, ice sheets will collapse, permafrost will abruptly thaw, and the Amazon rainforest will face irreversible die-back.

The implications of continued nature loss are disastrous for society, but will also impact existing corporate climate targets: in the face of inaccurate assumptions built into climate models, current corporate targets would soon be recognized as insufficient to keep temperature rise within 1.5°C or even 2°C. If we arrive at 2030 having failed to reverse nature loss, corporates would have no option but to substantially revise the ambition of their climate targets. Companies would have to rapidly accelerate their decarbonization efforts or increase their reliance on risky and expensive carbon removal to remain aligned with science. This would be far more expensive for companies than taking steps today to protect nature beyond their value chains.

Put simply, by contributing to the protection, management, and restoration of nature, companies will support societal net zero efforts *and* preserve the foundational integrity of their own net zero targets.

Global climate ambition is dependent on nature

The impact of nature on the global carbon cycle is difficult to overstate.[4] It is responsible for:

- 58% of all anthropogenic greenhouse gases (GHGs) flowing in and out of the atmosphere
- 35% of gross human-caused emissions annually
- Nearly 100% of existing carbon removals, which absorb more than half of current human-caused emissions from the atmosphere each year.[5]

It is now broadly accepted that there is no pathway to a 1.5°C future without addressing emissions from nature.[6][7] The agriculture, forest and land use sector is a net emitter of roughly 12 Gt annually, and studies repeatedly show that we need the land system to provide 30% or more of the climate solution by 2030 and 2050 to keep a 1.5°C pathway

[3] https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/
[4] For the purposes of this document, nature is defined as land management / ag. + land use change + anthropogenic carbon removals + natural land sinks + natural ocean sinks.
[5] https://whynature.foodandlandusecoalition.org/
[6] https://climatechampions.unfccc.int/no-net-zero-without-nature/
[7] https://www.ipcc.ch/srccl/

alive.[8][9][10] Reducing emissions and scaling removals from nature requires immediate action through a number of activities:

- Reducing land use change and ecosystem degradation
- Reducing non-CO_2 agriculture emissions
- Shifting diets
- Reducing food loss and waste
- Restoring forests and other terrestrial ecosystems
- Improving forest management
- Increasing agriculture soil carbon removals and agroforestry practices.

Why corporate action on nature within the value chain is insufficient

While corporate climate commitments are critical to addressing land-based emissions in value chains, they will fall well short of addressing all existing emissions from nature. As SBTi notes, there are two simple reasons why addressing nature loss will require companies to go beyond their value chain:

- A significant source of land-based emissions lies beyond the reach of corporate value chains, in activities such as subsistence farming, land trafficking, and informal or semi-formal food supply chains. Reducing these emissions will require action above and beyond what can be achieved through value chain interventions alone.
- Most companies do not have science-based emissions reduction targets, including a majority of companies with significant food, land and agriculture (FLAG) in their value chains. Uptake of SBTi or equivalent targets by the FLAG sector is woefully short of what is needed to end nature-related emissions within value chains.

The finance gap

Perhaps more than any other climate solutions, nature-based solutions for climate are desperately underfunded. The vast majority of international climate finance is now spent on transforming the energy and transport systems, with less than 3% channeled towards land use despite its potential to provide 30% or more of the emissions reduction needed to meet the goals of the Paris Agreement. And while climate finance continues to scale, the proportion of funding going to nature has been in decline in recent years.

Reaching our climate goals will require companies to triple investments in nature-based solutions by 2030, helping close a $4.1 trillion finance gap that is expected by mid-century. If 1,700 of the world's highest emitting companies compensated for just 10% of their emissions through investments in nature, more than $1 trillion could be mobilized by 2030.

What just 10% could get us

The table below shows the catalytic impact that world's 1,700 largest emitters could have if they counterbalanced 10% of their annual unabated emissions on their pathway to science-aligned net zero. This hypothetical scenario examines the emissions pathway of a

[8] https://www.nature.com/articles/s41558-019-0591-9
[9] https://www.pnas.org/doi/10.1073/pnas.1710465114
[10] https://www.weforum.org/reports/nature-and-net-zero/

real company, assuming it takes a linear trajectory to reducing emissions aligning with the carbon law beginning in 2023, reducing emissions by 7% each year until 2030.

Sample Company 1	2023	2024	2025	2026	2027	2028	2029	2030	Cumulative reductions:
Annual emissions following carbon law	33.4	31.1	28.9	26.9	25.0	23.2	21.6	20.1	-57.1
10% investment in nature	3.3	3.1	2.9	2.7	2.5	2.3	2.2	2.0	-21.0

Through value chain abatement activities alone the company would reduce its baseline emissions by a cumulative 57 million tonnes over eight years. However, by compensating for 10% of emissions through carbon credits in nature, the company's total climate impact increases to 78 million tonnes, raising the ambition of a value-chain-only approach by **more than 35%.**

When applied at an aggregated level, the potential for corporates to tackle the nature and climate crisis quickly becomes staggering. If just 1,700 of the world's highest emitters adopted guidance to counterbalance 10% of their emissions through the end of the decade, the cumulative impact could reach 30 Gt – representing more than 10% of our remaining 1.5°C carbon budget, or more than five times the annual emissions of the United States.

In 2030 these 1,700 companies alone could help deliver nearly 25% of the potential 12 Gt of abatement from nature. The remaining 75% could be delivered through actions within Nationally Determined Contributions (NDCs), corporate climate actions within value chains targeting land-based emissions, and supplemental investments from additional companies.