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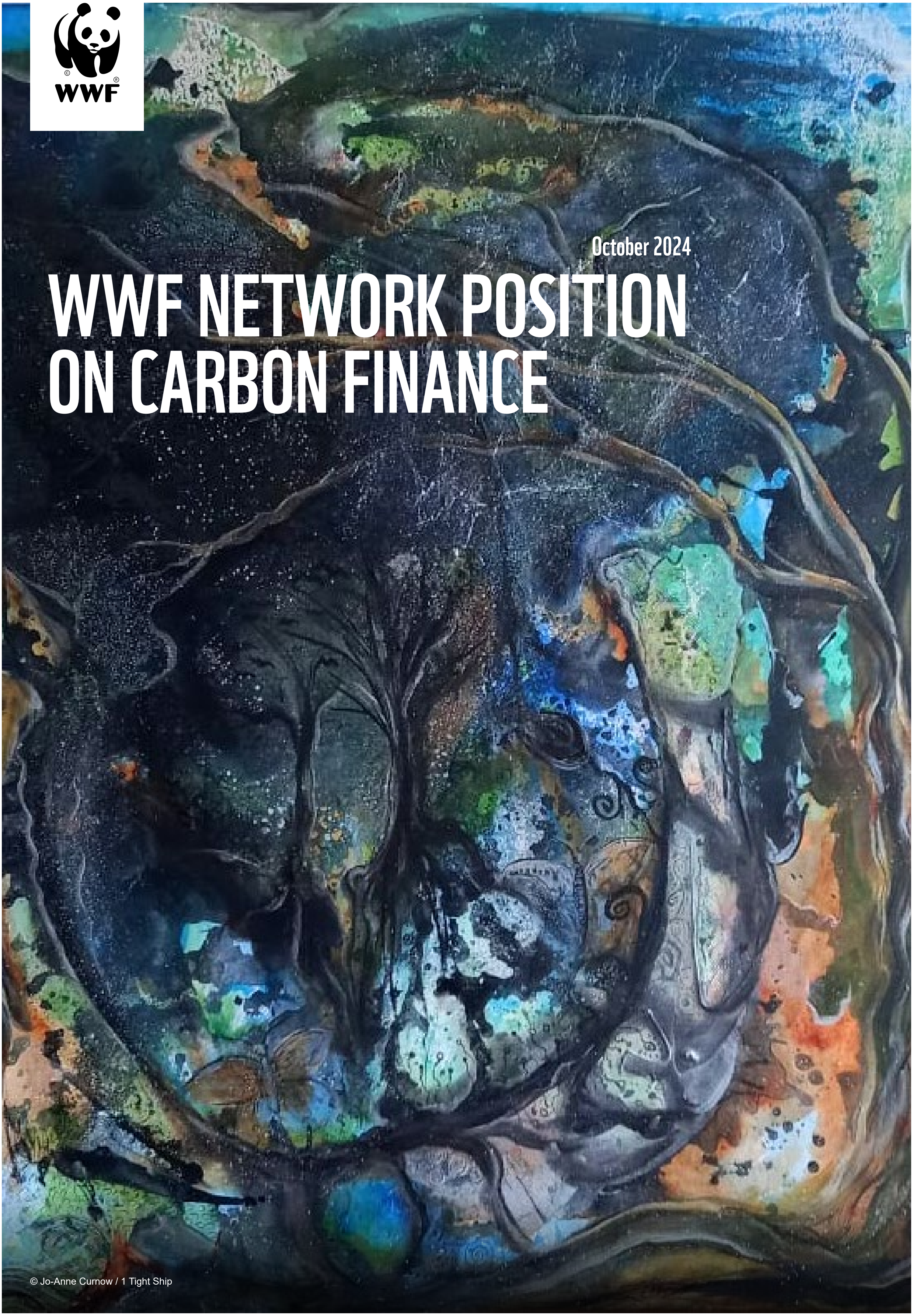
WWF NETWORK POSITION ON CARBON FINANCE



EXECUTIVE SUMMARY

To avert the worst effects of climate change, global warming needs to be limited to 1.5°C with limited overshoot. This will only be possible if we dramatically reduce greenhouse gas emissions and increase carbon dioxide removals in line with achieving net zero CO_2 by 2050. This requires a significant shift in public and private finance – away from supporting harmful activities and towards scaling up climate and nature action at speed and scale.

Finance is a critical enabler for action, but just increasing finance flows is not a proxy for impact. It is critical to not only mobilise finance but also ensure the right investments and tools are prioritised to most effectively deliver the best outcomes for climate, nature and people.

This paper sets out WWF's position on carbon finance, a type of climate finance in which countries and corporations can finance measurable greenhouse gas emission reductions or removals.

WWF advocates for an approach to carbon finance focused on driving credible and durable emission reductions, the transformation of carbon polluting sectors and markets, and maximising contributions to global climate action in a way that also benefits nature and people.

This approach aims to more effectively deploy carbon finance by moving carbon finance away from the problematic 'carbon neutrality' lens and the short-term compensation of the previous year's emissions, to refocus on the long-term investments needed to achieve a net-zero economy and halt and reverse nature loss.

WWF's positions on carbon finance:

1. WWF encourages companies to prioritise investments in value-chain emission reductions, and to also make additional investments beyond their value chains.

   In-value-chain investments

   Corporate climate action is an indispensable element of building a net zero future. It should primarily focus on investments for emission reductions in their value-chains, which is where they typically have the greatest incentive to act and the most influence to drive change. By investing in their value chains, companies facilitate the low-carbon transition and market transformation in the sectors and regions where they operate. Robust climate targets, such as those approved by the Science-Based Targets initiative (SBTi), can help drive these investments.

   The targeted use of some market mechanisms within value chains can also provide companies struggling to meet their targets with new options and incentives if they enable decarbonisation beyond what is possible through direct investments.

   Beyond value chain mitigation

   To protect vital natural carbon sinks and support a just energy transition in places beyond company value chains, WWF encourages companies to make additional investments that deliver mitigation outcomes or contribute to systems transformations, such as Nature-Based Solutions (NbS). These investments – referred to as beyond value chain mitigation (BVCM) - should not replace or delay corporate value chain decarbonisation.

   WWF recommends companies make a financial commitment by setting a carbon fee on their remaining emissions that reflects their social and environmental costs, and directing the funds equivalent to that fee towards their BVCM investment portfolio. Furthermore, WWF recommends companies use transparent contribution claims and avoid compensation or offsetting claims on their BVCM investments. Contribution claims could include input claims (e.g. "We contributed to X by financing with $Y") or factual outcome claims (e.g. "Our support removes an estimated X tCO2-eq per year while improving the lives of Y families").

   When making BVCM investments, companies should identify the most appropriate funding vehicle, based on land and seascape needs in the case of NbS, which may include the use of carbon credits or alternative funding mechanisms. While carbon markets can help channel these much-needed funds, they are only one way to raise carbon finance. There is an urgent need for a wider set of credible financial mechanisms that address context-specific and interconnected challenges, while delivering benefits for people, nature and climate in an effective and enduring way.

Carbon credits

WWF supports the targeted use of carbon credits, such as in compliance markets with strong regulatory frameworks, within a company's value chain (i.e. insets where units are not used to offset, and are useful as a measurement, monitoring and tracking tool), for neutralising residual emissions, and for a BVCM investment portfolio. Companies should account and report purchased carbon credits separately from their emissions reductions and removals. Safeguards must also be in place for the use of carbon credits to ensure no perverse double counting of outcomes.

WWF does not support the use of carbon credits from outside a company's value chains to offset or substitute required emission reductions to limit warming to 1.5ºC with no or limited overshoot.

WWF supports neutralising residual emissions - those remaining emissions within a company's value chain that are hardest to reduce - with durable carbon removals, as outlined in the SBTi Net Zero Standard, which can be considered a limited type of offset, as they come from outside the value chain. WWF recognizes that scaling removals is needed well before the net-zero year to limit warming to 1.5ºC with no or limited overshoot, therefore we advocate for moving towards separate emission reduction and removal targets for the near- and long-term, including separate accounting and reporting.

WWF will not engage with or endorse interventions generating carbon credits to be traded on the open market (including secondary trades, securitisation and derivatives), except where the integrity of the buyer can be verified and credits are immediately retired upon sale to the end buyer. Similar to the recommendations for units traded under compliance market mechanisms, project activities that generate carbon credits for voluntary use must respect human rights, benefit local communities, and represent additional, real, unique and permanent emissions reductions or removals.

2. **WWF supports Nature-based Solutions for climate mitigation based on landscape/seascape needs, that deliver enduring benefits for nature, people and climate.**

   Finance for NbS must deliver enduring benefits for climate, nature and people. NbS interventions for climate mitigation need to be designed at scale based on the needs of the land and seascape, deliver multiple benefits, and be planned and financed for the long term.

   Projects need to follow a human-rights-based approach, including respect for and protection of the rights, cultures and customs of Indigenous Peoples, local communities, women and other rights-holders. They should ensure these actors are rightful owners of projects on their territories with their free, prior and informed consent (FPIC), that benefits are shared equitably, that accessible and fair mechanisms are in place for raising and addressing grievances, and that there are robust and transparent measurement, reporting and verification processes.

3. **WWF strongly encourages Governments and public financial institutions to increase climate finance flows through innovative and economic instruments.**

   Innovative instruments

   Alongside private sector climate finance, there is a need to scale up public finance and alternative solutions. Examples include innovative risk assessment and management, blended finance strategies, research and development (R&D) and funds for renewable energy and carbon removal technologies, debt-for-nature swaps, project finance for permanence and initiatives such as Brazil's proposed Tropical Forest Forever Facility. This is particularly critical for countries with high integrity forests and large carbon stocks, the conservation of which is not well served by carbon markets.

   Economic policy instruments, including compliance carbon markets and Article 6 of the Paris Agreement

   Compliance markets allow countries and companies to trade emissions reductions and removals units under national or regional emissions caps, and through the mechanisms developed under Article 6 of the Paris Agreement. In doing so, these mechanisms put a significant and rising price on carbon that can drive emissions reduction and removal activities.

   Compliance market mechanisms must ensure emissions units transferred represent additional, real, unique and permanent emissions reductions or removals. Carbon pricing policies generally incentivise lower cost mitigation, and should therefore be complemented by other policies and regulations (e.g. performance standards, investments in innovation, subsidies, infrastructure regulations, and corporate regulations) to drive the less price elastic decarbonisation activities and systems transformation that is needed to limit warming to 1.5°C.

   Producing the deep decarbonisation and systems transformation that is needed to limit warming to 1.5ºC will require carbon pricing instruments to be complemented with other policy tools.

Core rationale for WWF's approach to carbon finance

There are two core issues that the current approach aims to address. First, measuring climate mitigation action through the lens of carbon neutrality is problematic as it often does not fully compensate for the negative impacts on people, nature and the climate, and hides what a company is doing in terms of its climate action. WWF's approach to carbon finance advocates for a move away from a compensation paradigm and towards a contribution model. Second, there is a mismatch between how current carbon finance mechanisms are employed, and the scale of the climate finance gap. Part of the reason is a singular focus on attribution and a belief that, year on year, companies are only responsible for, at most, part of their greenhouse gas (GHG) emissions in the previous year. How companies take responsibility for these emissions may also not fully represent the socio-environmental price of the emissions – for example, if they buy low-cost, low-quality carbon offsets. For the finance gap to be bridged, companies must no longer simply consider how to take responsibility for last year's emissions alone, but also how they can contribute to market transformation, support the transition to a net-zero economy, and invest in high quality mitigation activities outside their value chains. Investments by companies must also serve nature and people, in addition to the climate. WWF believes that the approach outlined in this paper can help companies shift from a narrow focus on their own emissions towards making a significant contribution to global climate action.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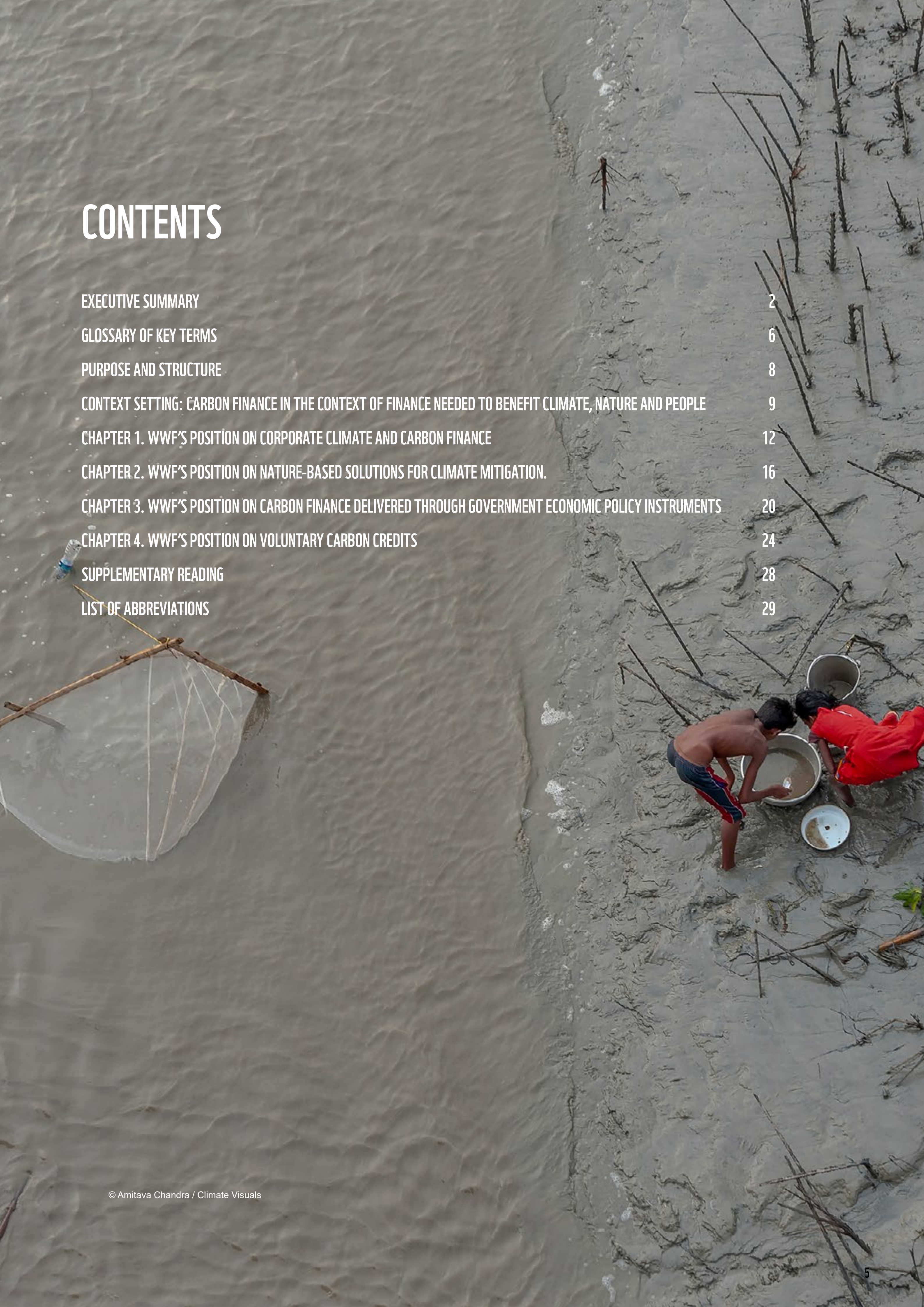

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GLOSSARY OF KEY TERMS

CLIMATE FINANCE VS CARBON FINANCE

Climate finance refers to local, national or transnational financing that seeks to support climate mitigation, adaptation or loss and damage. This can come from public, private or alternative funding sources. Climate finance transactions, which support climate change mitigation and adaptation in developing countries, are accounted for under Article 9 of the Paris Agreement.

Carbon finance is a subset of climate finance involving the funding of quantified climate mitigation outcomes from greenhouse gas emission reduction or removal activities. Examples of carbon finance transactions are transactions under emissions trading schemes, Article 6 of the Paris Agreement, voluntary carbon markets, mitigation-related bankable solutions and results-based payments.

CARBON CREDITS FOR OFFSETTING VS INSETTING VS BEYOND VALUE CHAIN MITIGATION (BVCM)

A **carbon credit** is an emissions unit that is issued by a carbon crediting programme and represents the GHG mitigation outcome (typically one metric tonne of carbon dioxide equivalent) of an emissions reduction, avoided emission, or removal activity. Carbon credits are uniquely serialised, issued, tracked and cancelled by means of an electronic registry.[1] Credits are often used to offset emissions but also have other uses such as for insets, and for acquiring and retiring as a form of BVCM without being used for carbon offsetting.

Carbon offsetting is the use of carbon credits generated from emissions reductions or removal activities outside an organisation's value chain to compensate for emissions from its products or activities. Offsetting is typically accompanied by carbon neutrality, net zero or related claims.[2]

Carbon insetting[3] is the use of carbon credits or quantified mitigation outcomes of projects or broader interventions that reduce emissions or increase removals inside the reporting organisation's value chain and which are used towards a company's emissions reduction targets[4]. A carbon credit used within supply chains can be a useful measurement, monitoring and tracking tool for corporate GHG inventory accounting, and for companies who want to verify that emission reductions or removals occurred within their supply chain and prevent anyone else from claiming them.

Beyond value chain mitigation (BVCM) is a portfolio of activities and/or investments that fall outside a company's value chain (scopes 1, 2 and 3), aimed at delivering direct mitigation outcomes (including through carbon credits) or indirect mitigation outcomes through climate solutions and innovations that unlock systems transformation needed to achieve net zero emissions. Efforts to deliver BVCM must not replace or delay corporate value chain decarbonisation in line with a 1.5ºC pathway with no or limited overshoot – instead, BVCM is a mechanism by which companies can go above and beyond value chain abatement. BVCM activities should also bring social, biodiversity and resilience benefits, in addition to mitigation benefits.[5]

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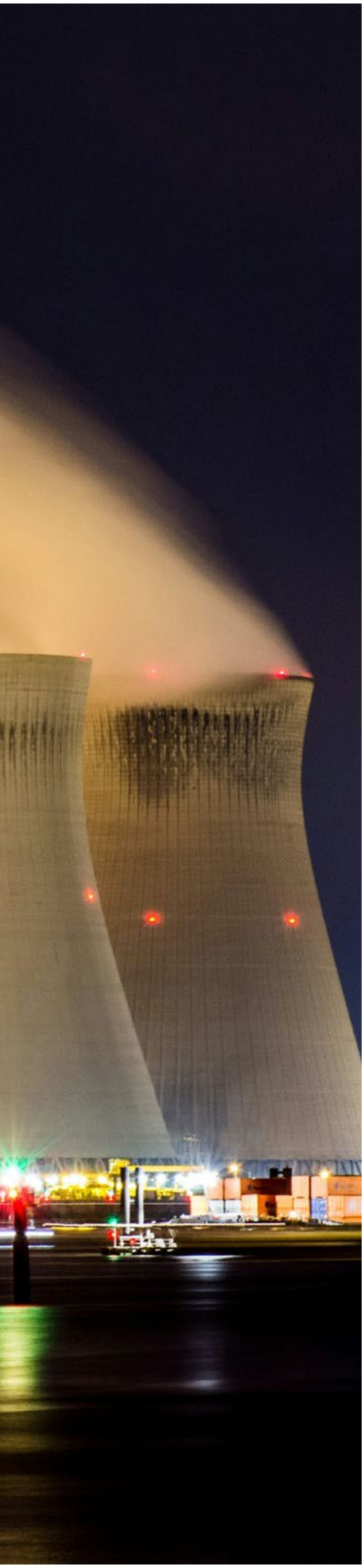
1 IFRS S2. 2023. Climate-related Disclosures. Appendix A.

2 Adapted from SBTi, 2024. SBTi glossary 2024.

3 Insetting does not yet have a formal agreed upon definition, but multiple organisations such as the SBTi and the GHG Protocol are working to more formally define insetting.

4 Adapted from SBTi, 2024. SBTi glossary 2024.

5 Adapted from SBTi, 2024. SBTi glossary 2024.



REMAINING EMISSIONS VS RESIDUAL EMISSIONS

Remaining emissions (also referred to as annual unabated emissions) are a company's unabated scope 1, 2 and 3 emissions in a given year as it progresses toward its near- and long-term science-based target.[6]

Residual emissions represent the emissions that cannot be completely eliminated despite implementing all available mitigation measures and will need to be neutralised using an equivalent quantity of removals to achieve net zero. In the context of science-based targets[7], residual emissions refer to the company's scope 1, 2 and 3 emissions that remain in its net zero target year.[8]

CARBON NEUTRALITY AND NET-ZERO CLAIMS VS CONTRIBUTION CLAIMS

To make a **carbon neutrality claim**, companies often counterbalance their remaining and residual emissions using an equivalent quantity of carbon emission reduction or removal credits from projects outside their value chain.

As an alternative, WWF recommends companies should make **contribution claims** that reflect how their investments are contributing to global climate efforts. Companies doing this should quantify a financial commitment to address their remaining greenhouse gas emissions that is high enough to reflect their true social and environmental cost. A contribution claim is part of the contribution approach. The full application of the **contribution approach** is where companies: 1) Reduce value chain emissions, in line with an ambitious science-based target pathway as a priority; 2) Make a financial commitment that internalises the external costs of remaining GHGs, and disclose all assumptions, including the implicit carbon price; 3) Invest the financial commitment in high-impact climate and nature actions;[9] and 4) Transparently disclose emission reductions and removals separately, and use contribution claims instead of compensation claims for any beyond value chain mitigation.

TRADING VS RETIREMENT OF CARBON CREDITS

Carbon trading refers to the buying and selling of carbon credits. Carbon credits are traded in some compliance markets (to meet legal obligations) and the voluntary carbon market (without a legal obligation). When a credit is **retired**, it is permanently removed from market circulation and cannot be used or traded again. **Secondary trading** occurs when carbon credits are bought and sold after their initial issuance, typically involving trading between entities that were not part of the original transaction.

COMPLIANCE CARBON MARKET VS VOLUNTARY CARBON MARKET

Carbon markets are trading systems in which carbon credits can be bought and sold. **Compliance carbon markets** allow regulated entities (e.g. businesses) to obtain and surrender emissions permits (allowances) or carbon credits to be used in compliance with mitigation policies, especially emission trading systems, carbon taxes and low-carbon fuel standards.[10]In the **voluntary carbon market (VCM),** carbon credits are purchased voluntarily (i.e., not for emissions compliance purposes).[11]

CARBON MARKET STAKEHOLDERS

Stakeholders cover a wide range of people and groups - anyone who has any level of influence over, interest in or, who may be affected (positively or negatively) by activities part of carbon market projects or programs.

6 Adapted from SBTi, 2024. SBTi glossary 2024.

7 SBTI Corporate Net Zero Standard V1.2

8 Adapted from SBTi, 2024. SBTi glossary 2024.

9 Some of these actions might generate quantifiable emission reductions or remove carbon from the atmosphere, while others might unlock the pipeline of future climate solutions. These solutions could include nature-based solutions, new emissions capture technologies, and even business innovation and transformation efforts that can further society's move toward a net-zero economy.

10 Dubash et al. 2022. IPCC AR6 WG3, Chapter 13.6.3, National and sub-national policies and institutions.

11 Dubash et al. 2022. IPCC AR6 WG3, Chapter 13.6.3, National and sub-national policies and institutions.

PURPOSE AND STRUCTURE

This paper sets out WWF's position on *carbon finance*, a subset of *climate finance*. This position is intended to support advocacy with public and private actors as well as to guide engagements with carbon projects and programmes. The paper covers a range of topics, starting by setting the context of carbon finance needed to benefit climate, people and nature (context setting), WWF's approach to corporate carbon finance (chapter 1), carbon financing of nature-based solutions (chapter 2), carbon finance within government economic policy instruments (chapter 3) and voluntary carbon credits (chapter 4).

A dedicated section on carbon credits does *not* mean WWF believes them to be the most important or credible instrument for decarbonisation, although they can have a role to play. Our position on the most credible corporate carbon finance pathways (chapter 1) is laid out alongside principles and criteria for high-integrity NbS for climate mitigation that benefit people, nature and climate (chapter 2).

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CONTEXT SETTING: CARBON FINANCE IN THE CONTEXT OF FINANCE NEEDED TO BENEFIT CLIMATE, NATURE AND PEOPLE

I. The challenge

Climate change and biodiversity loss are interconnected crises: climate change exacerbates biodiversity loss, while the loss and degradation of ecosystems undermines efforts to mitigate climate change. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC) underscore the need to address these crises together to achieve sustainable development goals and deliver enduring outcomes for climate and nature.

Governments have set ambitious climate and nature commitments to limit warming to 1.5°C (Paris Agreement of the UNFCCC) and halt and reverse biodiversity loss (Kunming-Montreal Global Biodiversity Framework of the UNCBD). It will not be possible to deliver on those commitments without rapid, deep and sustained GHG emissions reductions from fossil fuels, agriculture, forest management and land-use change, and increased carbon dioxide removal from the atmosphere, including through the protection and restoration of nature. Meeting those goals also requires a transformation of our energy, industry, transport, infrastructure, land, food, and water, and economic and market systems, demanding significant public and private sector action. Finance is both a critical enabler of public and private sector action, and part of the economic system that needs to be transformed.[12]

To limit global warming to 1.5°C, the IPCC finds that climate mitigation finance (US$640 billion in 2020) will need to increase by 3 to 6 times globally by 2030, 4 to 7 times in developing countries, and even more in underfunded sectors such as agriculture and forestry (10 to 30 times).[13] For nature, finance gaps are estimated at US$340 billion per year by 2030 for nature-based solutions,[14] US$460 billion per year to halt and reverse forest loss by 2030,[15] and US$598-824 billion to address biodiversity loss.[16] Although these finance gaps are large, they are dwarfed by investments in climate- and nature-destroying activities (e.g. US$7 trillion in fossil fuel subsidies in 2023 plus the US$542 billion spent per year on environmentally harmful subsidies in agriculture, fisheries and forestry[17]) and the costs of inaction and losses due to climate change impacts (estimated at up to US$38 trillion by 2050).[18]

12 IPCC. 2022. Sixth Assessment Report Working Group III, chapter 15

13 IPCC. 2022. Sixth Assessment Report Working Group III, chapter 15

14 UNEP. 2023. State Of Finance for Nature 2023.

15 Haupt, F., Matson, E., et al. 2023. Off track and falling behind. Tracking progress on 2030 forest goals. The Forest Declaration Assessment.

16 Deutz, A., Heal, G., et al. 2020. Financing Nature: Closing the global biodiversity financing gap. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability.

17 Deutz, A., Heal, G., et al. 2020. Financing Nature: Closing the global biodiversity financing gap. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability.

18 Kotz, M., Levermann, A., et al. 2024. The economic commitment of climate change, Nature.

II. The need

Meeting the global need for climate and nature finance demands a seismic shift at global, national and local levels to get funding flowing in the right direction. We can do this in two mutually reinforcing ways: 1) ***greening finance*** – aligning financial systems to deliver climate, nature and sustainable development goals, and 2) ***financing green*** – mobilizing finance for climate impact and conservation at scale.

Greening finance requires that institutions reckon with the financial risks posed by the climate and nature crises and take action to address these risks, including redirecting current investments away from activities that damage nature and the climate and toward those that support a net-zero-carbon, climate-resilient and nature-positive future. Regulations are key to helping drive the integration of nature and climate risks into operations and activities. The Greening Financial Regulation Initiative (GFRI), Network for Greening the Financial System (NGFS) and Taskforce on Nature-related Financial Disclosures (TNFD) are examples of finance-related initiatives WWF supports that help the finance sector address environmental risks.

Financing green will need to significantly increase the flow of public and private sector funds toward activities with a positive impact on the environment and society.[19] Greening and scaling up public finance through government budgets and economic and regulatory tools is critical, but it is not enough. We will also need to green and significantly scale up private sector finance,[20] including through greening corporate value chains, green financial products (e.g. funds and loans) and carbon finance (see glossary).

The role of carbon finance to address the finance challenge and need

Although finance is a critical enabler for action, increasing finance flows is not a proxy for impact. It is critical to not only mobilise finance but also ensure we prioritise the right investments and tools to most effectively deliver the best outcomes for climate, nature and people. There are various analyses of finance instruments that could reduce negative impacts to climate and nature (e.g. removing harmful subsidies and greening supply chains) and generate new funds or revenue.[21] However, there are few assessments and evidence of what types of finance instruments are fit for purpose to deliver optimal and enduring impacts for climate, nature and people in specific regions and ecosystems, and under what conditions.

Over the past couple of decades, carbon finance (funding of measurable greenhouse gas emissions reductions or removals; see glossary) has gained significant traction and attracted considerable investments, especially for carbon credit projects (see glossary) through compliance and voluntary carbon markets and results-based payments. Although carbon credits are one of the most well-known climate financing instruments, they are one among many that can be deployed. For example, corporate finance can deploy a wide range of climate finance instruments, including capital expenditures (e.g. greening supply chains by improving facilities' energy efficiency and installing on-site solar panels), grants (e.g. to small-holder farmers to shift to sustainable practices), venture capital (e.g. impact funds), internal carbon pricing, and green bonds[22]. Similarly, public finance can employ various instruments such as carbon taxes, subsidies and tax credits, loans, sovereign green bonds, bilateral and multilateral funds, debt-for-nature swaps, payments for ecosystem services, and project finance for permanence.

Carbon finance and carbon markets have been effective at incrementally scaling quantified mitigation solutions, including some that can simultaneously drive positive biodiversity and social impacts, but evidence shows they are less effective at addressing drivers of climate change and nature loss and catalysing transformative change.[23] They are also subject to significant risks that need to be addressed or avoided (see Box 1). To ensure that carbon finance — in particular carbon finance from carbon markets — delivers effective and enduring benefits for climate, nature and people, there must be clear environmental and social safeguards, and guardrails for their use. Its use will also need to be periodically assessed and adaptively managed to enhance its effectiveness, as well as leveraged with other finance instruments to deliver its full potential. In the following Chapters, we outline WWF's position on corporate climate and carbon finance, carbon finance from government economic policies, high quality NbS projects and on the development, and the purchase and use of voluntary carbon credits.

19 WWF. 2023. Financing the Green. Unlocking finance for nature and people.

20 Defined as investments from corporations, commercial financial institutions,institutional investors, and private equity, venture capital, and infrastructure funds. Adapted from CPI 2023, Global Landscape of Climate Finance 2023.

21 Including: CPI's Global Landscape of Climate Finance, UNEP's State of Finance for Nature, Deutz et al (2020), HLEG Report on Climate Finance (2023)

22 CPI. 2023. The Corporate Climate Finance Playbook Unlocking Corporate Finance for Climate Action

23 IPCC. 2022. Sixth Assessment Report Working Group III, chapter 15

BOX 1. Potential risks of carbon credits and carbon offsetting

Some studies highlight the benefits of carbon credits in producing mitigation outcomes, but many recent studies have called into question the effectiveness of carbon credits in delivering emissions reductions[24]. For example, Probst et al. (2023) found that only 12% of the total global carbon credit volume constituted real emission reductions (with 0% reductions from renewable energy projects, 0.4% for cookstoves, 25% for forestry and 27.5% for chemical processes);[25] Cammes et al. (2016) show that 73% of the Certified Emission Reductions (CERs) in 2013-2020 under the Clean Development Mechanism are likely not additional and therefore overestimated;[26] Badgley et al. (2022) show that nearly one third of the credits from California's forest offset program do not provide real climate benefit;[27] Gill-Wiehl et al. (2024) conclude that the improved cookstove projects they assessed were over-credited by 6.3 times;[28] and West et al. (2023) found that credits from 18 voluntary REDD+ projects in 6 countries with public data were used to offset 3 times more emissions than were avoided by the projects.[29] The credibility of mitigation outcomes claimed is mostly in question for avoided deforestation, improved forest management and renewable energy projects.

Much of the issue stems from carbon credit projects that use flawed methodologies — primarily inflated counterfactual baselines and permanence estimates — which overestimate climate mitigation benefits. This poses a major risk for addressing climate change, especially if the credits are used to offset a company or organisation's emissions. Projects that do not use projected baselines, are based on jurisdictional approaches and have strong permanence safeguards, are generally able to mitigate such risks better.

In addition to climate integrity, another major risk from carbon credit projects is their potential negative social and environmental tradeoffs. The current carbon market system incentivises the generation of large volumes of cheap credits to maximise returns for project proponents. This system favours lower quality projects that rarely address the systemic drivers of the climate and nature crises and generate limited benefits or negative impacts for people and biodiversity. Evidence shows that in 2020-2023, most companies predominantly bought low-quality, cheap offsets, with over 80% carrying a high risk of failing to provide real emissions reductions[30] and other environmental and social benefits. The lack of robust stakeholder engagement, including of Indigenous Peoples and local communities, during project design and implementation, can lead to unfair agreements as well as marginalisation, exploitation and eviction[31]. Similarly, failing to incorporate biodiversity needs in the planning and monitoring process has produced perverse outcomes for nature (for example, the conversion of a natural grassland for a monoculture timber plantation).

Furthermore, other studies highlight large risks associated with carbon offsets and offset claims (see glossary)[32]. The use of offsetting could have potential unintended effects including deterring mitigation action by syphoning focus, funding, and innovation away from the in-value-chain reductions critical for transforming our economy. A major concern with offsetting is that if the carbon credits used to counterbalance a company or organisation's emissions do not represent real GHG reductions, then global emissions will increase and available carbon finance will decrease. Shortcutting the decarbonisation of value chains through offsetting also fails to address the material risks companies face associated with their value chain emissions.

To minimise or mitigate climate integrity risks, we need more robust methodologies and carbon standards, and a shift away from the offsetting paradigm (compensation model). The contribution approach is a more effective model for accelerating a net-zero transformation (see Chapter 1 for more detail).

To address project quality risks for land and seascape interventions, shifting from a project based approach to a jurisdictional approach, following a human-rights-based approach, and explicitly requiring biodiversity and social benefits, among others can help maximise solutions for climate, nature and people (see Chapter 2 for more detail).

24 SBTI. 2024. Evidence Synthesis Report Part 1: Carbon Credits

25 Probst et al., 2023. Systematic review of the actual emissions reductions of carbon offset projects across all major sectors

26 Cames et al., 2016. How additional is the Clean Development Mechanism? Analysis of the application of current tools and proposed alternatives

27 Badgley et al., 2021. Systematic over-crediting in California's forest carbon offsets program. Global Change Biology

28 Gill-Wiehl et al., 2024. Pervasive over-crediting from cookstove offset methodologies. Nature Sustainability volume 7, pages 191–202 (2024)

29 West, et al., 2023. Action needed to make carbon offsets from forest conservation work for climate change mitigation. Science Vol 381, Issue 6660 pp. 873-877.

30 Trencher et al., 2024. Demand for low-quality offsets by major companies undermines climate integrity of the voluntary carbon market, Nature.

31 Carbon Market Watch, 2023. Assessing the transparency and integrity of benefit sharing arrangements related to voluntary carbon market projects; Carbon Market Watch, 2023. Secretive intermediaries: Are carbon markets really financing climate action? ; Carbon Market Watch, 2023. Climate profiteering: Are intermediaries exploiting carbon markets for their own ends?

32 SBTI. 2024. Evidence Synthesis Report Part 1: Carbon Credits

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CHAPTER 1. WWF'S POSITION ON CORPORATE CLIMATE AND CARBON FINANCE

WWF's **Blueprint for Corporate Action on Climate and Nature** provides guidance and outlines four key sequential steps for companies to maximise their climate mitigation impact: 1) Account and disclose GHG emissions across the value chain; 2) Reduce value chain GHG emissions, in line with an ambitious science-based target pathway for limiting warming to 1.5ºC with no or limited overshoot (e.g. SBTi or similar) and sector transformation; 3) Make a financial commitment by pricing remaining GHG emissions; and 4) Invest the financial commitment in climate and nature impact. WWF calls on companies to incorporate this guidance and urgently deliver on their GHG emission reduction and financial commitment targets.

Building on the Blueprint guidance, in this Chapter, we outline WWF's position on how companies should green and enhance their corporate finance to deliver positive and enduring outcomes for climate, nature and people.

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I. Companies must first reduce their value chain emissions in line with a 1.5ºC pathway

Meaningfully addressing their GHG emissions requires that companies' investments primarily focus on in-value-chain emission reductions and transforming the sectors and markets they operate in. WWF believes that direct action and investment in company value chains is the most effective way to achieve the structural decarbonisation needed[33] because that is where companies have the greatest incentive[34] to act and the most influence[35] to drive change. In-value-chain investments therefore contribute to both financing green and greening finance. There is a strong business case for companies to invest within their value chain, as it addresses business risks, builds supply chain resilience, meets investor and policy requirements, and finances their transition pathway. Furthermore, companies investing in their value chain facilitate the low-carbon transition in the sectors and regions where they operate. In 2022, corporations spent about US$200 billion[36] on climate mitigation in their value chains – at least 100 times the volume of global finance in voluntary carbon markets[37].

In addition to climate impact, in-value-chain investments often flow to developing countries via multinational company supply chains.[38] The new SBTi Forest, Land and Agriculture (FLAG)[39] sector standard, launched in 2023, is spurring further financing for sustainable supply chains, contributing to stopping deforestation, supporting sustainable agriculture practices and restoring ecosystems and degraded land.[40] These help provide crucial investments and finance in developing countries[41].

Furthermore, the rapid decarbonisation of corporate value chains will accelerate our trajectory to net zero CO_2 emissions, which will significantly reduce climate risks and the costs of adaptation and loss and damage in vulnerable ecosystems, communities and countries[42]. Climate change impacts under the current business-as-usual scenario (~3°C with existing policies) show global average losses of 10% of GDP, with developing countries bearing disproportionately higher impacts of up to 17% of GDP.[43]

33 IPCC. 2022. Sixth Assessment Report Working Group III, summary for policymakers, section c.

34 MIT. 2020. Supply chain resilience in the era of climate change.

35 Gereffi, G., Humphrey, J., et al. 2005. The governance of global value chains. Review of International Political Economy. Vol 12, 2005.

36 CPI, 2023. Global Landscape of Climate Finance 2023.

37 Ecosystems Marketplace, 2023. State of the voluntary carbon markets 2023

38 World Benchmarking Alliance. 2020. The impact of multinationals in developing countries.

39 SBTi. 2023. Forest, Land and Agriculture (FLAG).

40 Roe, S., Streck, C., et al. 2019. Contribution of the land sector to a 1.5°C world. Nature Climate Change 9, 817-828 (2019).

41 Non-annex I parties of the UNFCCC.

42 Yang, H., Meng, K., et al. 2023. Spatial distributions of stranded fossil asset costs and benefits from climate change mitigation. Environ. Res. Commun. 5.

43 Waidelich, P., Batibeniz, F., et al. 2024. Climate damage projections beyond annual temperature. Nature Climate Change 14, 592-599.

II. Companies can enhance corporate climate action through the targeted use of some market mechanisms

Market mechanisms including environmental attribute certificates (EACs)[44] and carbon credits can apply to investments inside and outside a company's value chains. WWF supports the use of some market instruments if these enable companies to have a greater impact on decarbonization and market transformation than they are able to achieve through their direct investments.

For example, WWF supports the targeted and evidence-based use of market mechanisms *inside* company value chains, including:

- EACs for electricity (e.g., Renewable energy certificates) across all three Scopes
- Other energy carrier certificates (e.g., green hydrogen, green gas, sustainable aviation fuel)
- Certified commodities conveying a specific emission factor (e.g. green steel)
- Insets (emission reduction or removal credits issued for activities inside a company's value chain which are useful for measurement, monitoring and tracking for GHG inventory accounting; see glossary).

In addition, WWF supports the use of market mechanisms *outside* a company's value chain in the following cases:

- The use of high-quality and high-integrity durable[45] carbon removal credits across all three Scopes to neutralise residual emissions[46], with separate accounting and reporting of removals from emission reduction targets
- The use of high-quality and high-integrity carbon credits as one of many finance options for BVCM (see next section)

The systems governing these market mechanisms must have effective environmental and social safeguards, and ensure ambition, credibility and transparency (see Chapter 4 on requirements for carbon credits). In addition, if these market mechanisms are claiming to contribute to systems transformation, they should have evidence to prove these contributions or a clear theory of change and monitoring and evaluation programme to prove their effectiveness over time. This will promote a balance between providing the space for innovation and new approaches, while ensuring effective climate mitigation.

III. Companies should contribute to climate mitigation beyond their value chains

In addition to investments that drive in-value-chain emission reductions, private sector finance is also needed to address emissions that occur outside company value chains. Companies should therefore be incentivised to not only decarbonise their own value chains, but also to invest in climate mitigation actions that benefit people and nature beyond their value chains – without undermining either objective. BVCM (see glossary) is a mechanism that addresses this need, by incentivising investments outside a company's value chain that deliver mitigation outcomes without replacing or delaying corporate value chain decarbonisation.

WWF recommends companies make a quantified financial commitment for BVCM using a contribution claim, without claiming to offset GHG emissions (see next section). The financial commitment should be high enough to reflect the social and environmental cost of the company's remaining GHG emissions, and disclose all assumptions, including the implicit carbon price.

Companies can then invest the allocated financial commitment in a range of projects that can deliver near-term mitigation with other benefits for people and nature (for example through high-quality nature-based solutions (see chapter 2), increasing renewable energy access, and reducing food waste), or longer-term innovative climate solutions and systemic transformations needed to achieve net zero by mid-century (e.g. updating energy grids, sustainable carbon dioxide removal technology, industrial process enhancements).

IV. Companies should not offset or substitute required emission reductions, and shift to a contribution approach

Due to the risks outlined in Box 1, WWF does not support the use of carbon offsetting (see glossary) to meet required emission reduction targets[47] or compensate for missed company targets. WWF supports neutralising residual emissions (see glossary) with durable carbon removals, as outlined in the SBTi Net Zero Standard. This neutralisation can be considered a limited type of offset, as they come from outside the value chain. WWF also recognises that scaling removals is needed well before the net zero year to limit warming to 1.5ºC with no or limited overshoot[48], therefore we advocate for moving towards separate emission reduction and removal targets for the near- and long-term, and accounting and reporting of emissions reductions separately from

44 SBTi defines EACs 'as certificates used to quantify, verify and track the environmental benefits associated with climate mitigation activities or projects'.

45 WWF currently does not have a position on the extent of durability of removals for neutralising residual emissions

46 As outlined by the SBTI Corporate Net Zero Standard

47 Company targets must be in line with limiting warming to 1.5ºC with no or limited overshoot

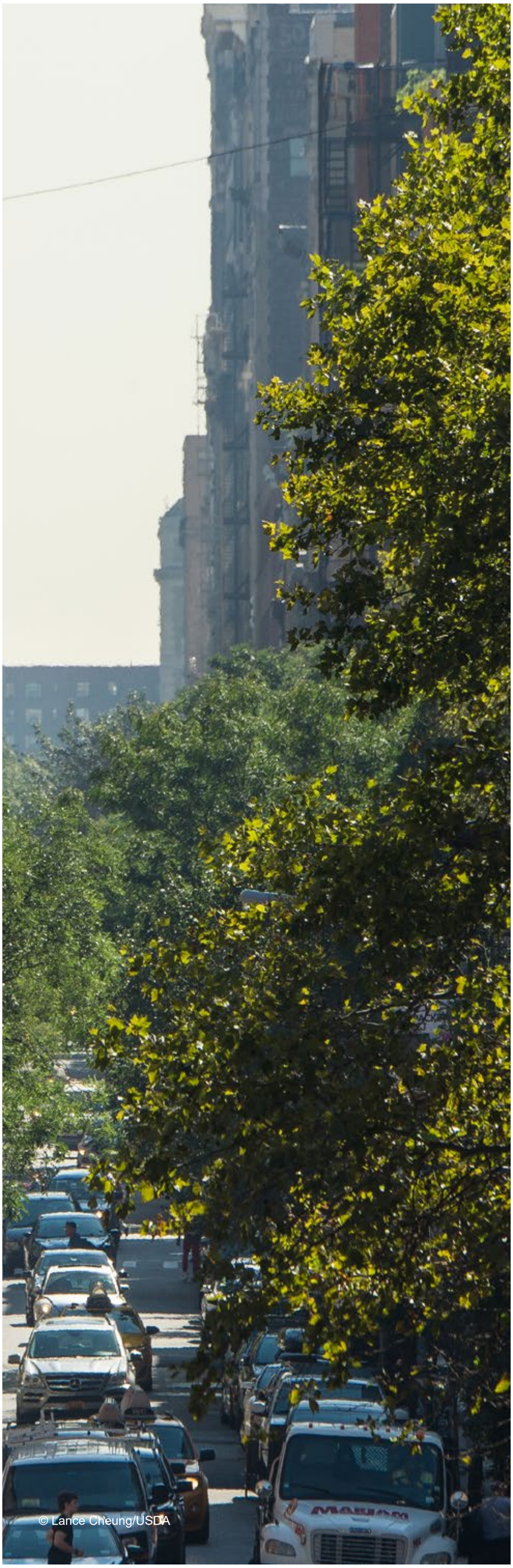
48 IPCC, 2023. Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, doi: 10.59327/IPCC/AR6-9789291691647.001

removals and/or purchased carbon credits[49]. Separate targets would clarify what amount of gross emission reductions and gross removals are needed in the near- and long-term without conflating the two and without undermining ambition. Instead of subtracting carbon credits from their direct emissions to give a net value, as is done in offsetting, companies that report their emission reductions separately from any removals and/or purchased carbon credits can more transparently and accurately show their climate mitigation actions. WWF also recommends companies avoid premature compensation claims before their net zero target year, such as claiming to be 'carbon neutral', 'net zero', or 'climate positive' through carbon offsetting, and instead make transparent *contribution claims* on any purchased credits to show how they are contributing to climate mitigation. For example, contribution claims could include input claims (e.g. "We contributed to X by financing with $Y") or factual outcome claims (e.g. "Our support removes an estimated X tCO2-eq per year while improving the lives of Y families).

By applying a contribution approach (see glossary), companies can transparently adhere to the mitigation hierarchy and prioritise reducing their value chain emissions. The contribution approach requires: 1) addressing in-value chain emissions as a priority, 2) setting a carbon fee for a company's remaining emissions, 3) investing the funds generated from the carbon fee into climate projects and/or technologies without using them to offset their emissions, and 4) transparent and separate reporting of in-value-chain emission reductions and removals, and using contribution claims instead of compensation claims for any out-of-value chain mitigation.

The application of a carbon fee to a company's emissions creates an internal incentive to reduce their emissions across their operations and value chain. The contribution approach also allows companies to take an outcome-focused "race to the top", and develop a holistic portfolio of projects that are broader than the current solutions within traditional crediting frameworks. As outlined in the previous section, this can include projects with direct mitigation outcomes (including carbon credits) but also transformative projects that indirectly enable systemic change. Whilst this approach permits the use of credits, it incentivises companies to focus on maximising their impact through high quality projects rather than purchasing the requisite amount of credits at the lowest possible cost.

The contribution approach addresses the key risks of offsetting (see Box 1), and therefore better aligns with global climate goals and regulatory frameworks (including recent policies that regulate the use of offsetting and offsetting claims), and supports NDC enhancement.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49 As required under regulation EU ESRS E1-7

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CHAPTER 2. WWF'S POSITION ON NATURE-BASED SOLUTIONS FOR CLIMATE MITIGATION

WWF has been increasingly involved in the promotion (e.g., through development, implementation, and support) of NbS interventions, in particular for climate mitigation[50]. This Chapter succinctly lays out core principles and provides guidance to support those projects and initiatives. In addition, the information in this chapter can also be relevant for types of NbS interventions that are more tailored to climate adaptation, although they might require additional considerations that are out of the scope of this paper.

WWF adheres to the NbS definition adopted by UN Environment Assembly UNEA-5[51] and acknowledges its potential to achieve the climate mitigation goals while generating benefits for people and enhancing biodiversity . In this paper, WWF sets its position specifically on NbS for climate mitigation, understood as "Ecosystem conservation, management and/or restoration interventions intentionally planned to deliver measurable climate mitigation together with human development and biodiversity co-benefits, and intentionally managed to anticipate climate risks that can undermine their long-term effectiveness."[52]

In addition to carbon credit generating projects, NbS for climate mitigation can be developed and scaled as "Bankable Nature Solutions (BNS)"[53] based on a variety of finance mechanisms, including those with non-carbon revenue. This is further explained in the wealth of reports and blueprints for high-quality BNS that WWF has produced.[54]

50 WWF NbS projects and initiatives are systematized in the WWF NbS Database, with several examples of NbS for climate mitigation.

51 Nature based Solutions are "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".

52 Adapted from WWF. (2020). Nature-based solutions for climate change.

53 WWF's Bankable Nature Solutions network works collaboratively with stakeholders to find and develop bankable projects that deliver actions similar to those in NbS for climate mitigation and adaptation interventions – reduce pressure on ecosystems, drive climate resilience and sustainability for both people and nature – while generating positive financial returns for communities and investors.

54 To consult the reports visit the Bankable Nature Solutions website.

Carbon finance for NbS for climate mitigation must be directed toward high-quality, high-integrity interventions that are well planned, implemented and monitored, and deliver durable and equitable outcomes (such as those complying with IUCN standards)[55]. NbS for climate mitigation should protect nature, respect rights, empower and enhance the agency of rights-holders and support people's livelihoods, with equitable, accountable and effect sharing mechanisms while also mitigating, adapting and strengthening resilience at land and seascape scale.

WWF advocates for NbS for climate mitigation based on landscape/ seascape needs, that deliver enduring benefits for nature, people and climate

I. Interventions must follow a human-rights-based approach

NbS for climate mitigation must take a human-rights-based approach. This means that part of the benefits should *actively* support and promote human rights, including supporting duty-bearers to meet their obligations, and rights-holders to claim and exercise their rights.

Recognising that working in contexts where there is weak rule of law, poor tenure security, high levels of inequality, power asymmetries, and/or high levels of corruption and impunity can lead to unintended consequences, NbS interventions should:

- At a minimum, mitigate risks of harm to human rights.
- Be predicated on a strong understanding of local contextual power and social dynamics.
- Assess the land tenure system and any risks to tenure security faced by Indigenous Peoples, local communities, women and other rights-holders. Ensure that tenure and security are not undermined. Investigate the legal status of the land to identify formal or customary rights, and if legal recognition is unclear, conduct additional due diligence to safeguard customary rights.
- Meaningfully obtain free, prior and informed consent (FPIC[56]) — this should be a comprehensive, ongoing and iterative process that also takes account of internal power asymmetries.
- Factor the costs of fully engaging Indigenous Peoples, local communities and other rights-holders, in project design, implementation and assessment. This should include efforts to strengthen their technical and financial capacities to enable them to make informed decisions and eventually take leadership in defining the most suitable NbS intervention or potential carbon credit projects and contracts. These interventions should be planned to grant them ownership of the project as soon as the capacity is in place. Agreements between Indigenous Peoples, local communities and other rights-holders with implementation partners (private companies or other non-governmental organisations) should be re-negotiated on a periodic basis to assess the viability of an extended collaboration or termination in case of non-compliance.
- Have transparent, free, fair and accessible grievance mechanisms to meaningfully investigate and address issues and concerns raised by rights-holders and stakeholders.
- Act as a 'force for good' for Indigenous Peoples, local communities and other rights-holders, with explicit support to gender equity and women empowerment and inclusion.
- Improve economic development and livelihoods, deliver net socioeconomic benefits, and work with and respond to local values and beliefs around nature.
- Ensure equitable, accountable and effective benefit sharing, with the majority of revenues being directed to local people. Adopt the 12 principles laid out in WWF's *Who reaps the benefits?*[57] guide and follow complementary WWF guidelines.[58]
- Conduct a safeguarding/inclusivity assessment to effectively identify risks and build the capacity of local people to reach just and equitable agreements on the sharing of benefits.
- Reduce complexity in benefit-sharing agreements and avoid 'locking' people into long-term deals without fair, accessible exit terms.
- Empower local stewardship models for NbS projects, and promote skill transfer to work toward these aims.

55 The IUCN Global Standard for Nature-based Solutions lists the Criteria and Indicators, as adopted by the 98th Meeting of the IUCN Council in 2020. It guides users to design and implement NbS in a way that allows nature to deliver its valuable ecosystem services.

56 FPIC centres on obtaining consent from Indigenous Peoples and local communities for any activities undertaken on their land. At the basic level, policies or programmes on or concerning lands of Indigenous Peoples and local communities cannot be implemented unless there is prior consultation and consent from the community. This includes any state policy or programme seeking to grant permission to a company or any other entity to conduct any activity on such lands. Once they have given their consent, they can withdraw it at any stage. Furthermore, FPIC enables them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated. Link for additional information.

57 WWF. 2022. Who reaps the benefits? Integrity principles for benefit sharing in forest NbS for climate mitigation.

58 For example, Guia de Tratos Justos by WWF-Colombia; Operational considerations for the integrity principles for benefit sharing mechanisms in nature-based solutions.

II. NbS for climate mitigation should be implemented at significant scale, or clearly support an integrated landscape/seascape or jurisdictional strategy or programme

Interventions at scale, such as land and seascape interventions and jurisdictional approaches, are better able to address the underlying drivers of deforestation and nature loss, avoid leakage, build institutional and technical capacity, promote concerted actions among stakeholders and relevant actors, and improve long-term sustainability than standalone or smaller-scale projects.

Smaller, standalone projects should only be developed in cases where a land and seascape or jurisdictional approach does not yet exist or where it is not feasible to work at large scale[59] and if they can deliver exceptional benefits for communities and nature.

III. Interventions should be designed to deliver multiple benefits

Interventions should give equal priority to improving livelihoods and human well-being, protecting and enhancing nature and biodiversity, and reducing or removing carbon, and seek to understand and balance trade-offs. The NbS Origination Platform (NbS-OP) provides examples of high-calibre projects that aim to deliver benefits for people, nature and climate, with metrics for measuring impact across these three pillars. Other set of examples are NbS projects and initiatives systematised in the WWF NbS Database, with several examples of projects working on climate mitigation and adaptation.

IV. Interventions should be planned and financed for the long term

NbS for climate mitigation need a mechanism to ensure financial and technical self-sufficiency and sustainability, using climate finance or other revenue. Partners should work with communities to transfer skills for long-term management of interventions, including ownership of ongoing monitoring, evaluation and reporting.

Where carbon credits are to be issued or claims are made about the carbon impact of a project, funders should be prepared to invest for the long term. For example, WWF's partnership with Velux is for a minimum of 20 years. Given the complexity of designing a carbon project or initiative, funding also has to be available for at least 3-4 years during the design phase of the intervention.

V. Interventions must exercise transparency and disclose relevant information

We recommend interventions be transparent about project income and how funds are allocated. This can take the form of annual reporting to donors, corporate partners and/or government agencies. In addition, risk analysis and mitigation should be an integral part of intervention planning and implementation, with information being transparently shared with affected stakeholders, and should include thorough due diligence on project funders as well as on implementation partners.

Projects must ensure transparency in measurement, reporting and verification – information should be shared among key stakeholders and made available to the public to support research and evaluation efforts. WWF encourages scientific research on standards, methodologies and their application in project development, as well as in the scientific verification of carbon accounting in projects for climate impact reporting.

Governments should also be supported to set up transparent reporting, review and engagement processes, especially in the case of jurisdictional-level programmes where Indigenous Peoples and local communities are involved.

VI. Robust measurement, reporting and verification must be in place

Projects must generate outcomes that are real, measurable, and verifiable, and should strive for methodological alignment with official monitoring methods[60] and any jurisdictional or national carbon programmes. If required by the project funder or relevant jurisdiction, interventions can use a credible voluntary market standard to quantify and issue emissions units as a means of measurement and verification.

Carbon projects should align to internationally recognised carbon standards and methodologies (e.g. programmes that adhere to the Core Carbon Principles provided by the ICVCM - Integrity Council for the Voluntary Carbon Market). WWF does not currently endorse any particular voluntary carbon market standard. WWF guidelines and policies, such as those provided in this document and its supplementary reading, must be followed.

Any claims made about investments in these interventions must be credible, supported by transparent data and analysis.

59 See recommendations from the Tropical Forest Credit Integrity Guide for companies version 2 (2023).

60 Examples in Brazil include Deter and Prodes Prodes and Deter: get to know these strategic systems in the fight against deforestation in the Amazon - InfoAmazonia; In Colombia, National Forest Monitoring systems for forest carbon in Colombia are closely aligned with best-practice for forest C monitoring.

VII. Finance mechanisms should work for communities as well as for land and seascapes

Implementing a NbS at a land and seascape scale begins with co-developing a comprehensive conservation plan for the targeted landscape, seascape, or jurisdiction in collaboration with stakeholders. This plan forms the basis for developing a conservation finance strategy tailored to the area's specific needs. WWF's Landscape Finance Playbook[61] can guide the selection of the most suitable financial instruments to support impactful conservation interventions.

Finance flows through supply chains, carbon credits, the contribution approach or through the UNFCCC compliance market (as outlined in the other sections of this paper) can be pursued separately or alongside other mechanisms in a blended approach, depending on the conservation needs.

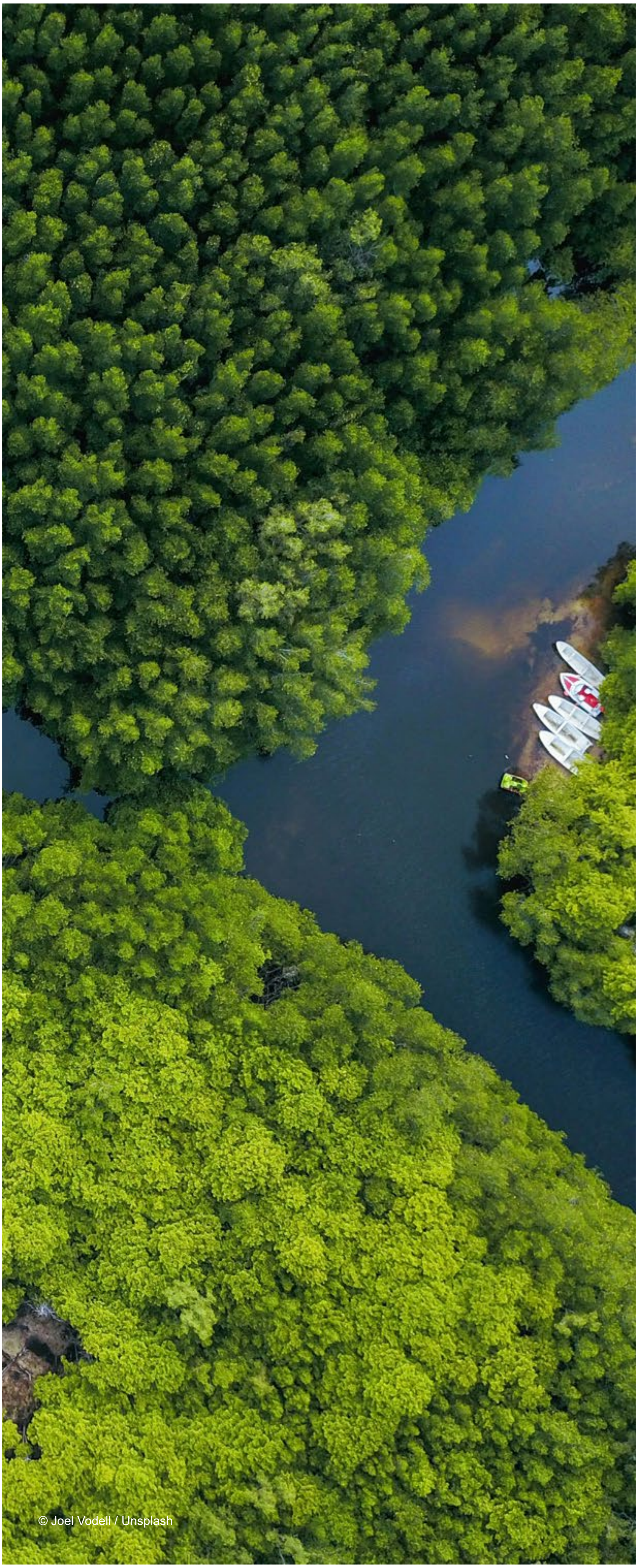
Carbon markets are just one of many available mechanisms and are often most effective when blended with other financial instruments. When funding from one source alone is not sufficient to support interventions, recommendations on stacking and bundling carbon credits with other credits must be followed (see Chapter 4 box 2).

Current carbon crediting methodologies may not be well suited for high-forest, low-deforestation 'HFLD' countries. There is an urgent need to develop and implement alternative mechanisms that reward countries that maintain high integrity forests (along with other terrestrial, freshwater, coastal and marine ecosystems with large carbon stores) and high conservation values yet have low levels of deforestation/ conversion and degradation. The WWF-COMIFAC Initiative[62] and Brazil's proposal to create a Tropical Forest Facility[63] are promising initiatives in this direction.

61 Link pending. Not yet published.

62 WWF. 2024. Increasing International Finance Flow to Sustain the Congo Basin's Forests. WWF news section.

63 MMA. 2024. Governo apresenta a países com florestas tropicais proposta de fundo para conservação. MMA news section.



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CHAPTER 3. WWF'S POSITION ON CARBON FINANCE DELIVERED THROUGH GOVERNMENT ECONOMIC POLICY INSTRUMENTS

Economic policy instruments, including carbon taxes, emissions trading systems and subsidies, provide a financial incentive and/or channel finance for climate change mitigation. As highlighted in the most recent IPCC report,[64] carbon pricing mechanisms have become more prevalent, covering about a quarter of global emissions, and have shown to be effective in reducing greenhouse gas emissions cost-effectively. However, the IPCC also finds that carbon pricing is limited in its effect where decisions are less sensitive to price incentives, such as in energy efficiency, urban planning and infrastructure. Producing the deep decarbonisation and systems transformation that is needed to limit warming to 1.5ºC will therefore require carbon pricing instruments to be complemented with other policy tools including performance standards, investments in innovation, subsidies, infrastructure regulations and corporate regulations.

WWF supports the use of effective economic policy instruments such as cooperative approaches under Article 6 of the Paris Agreement, carbon pricing policies and compliance carbon markets (e.g. national, regional and inter-state emissions trading systems), to finance mitigation activities. WWF recognises that these policy instruments are developing in tandem with the voluntary carbon market (VCM) and some instruments have strong interlinkages with the VCM. For example, internationally transferred mitigation outcomes (ITMOs) and mitigation contribution units (MCUs) issued through Article 6 of the Paris Agreement[65] could compete with demand from the VCM, and the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) administered by the International Civil Aviation Organisation leverages the VCM to reduce the emissions from the aviation sector.

64 Dubash et al. 2022. IPCC AR6 WG3, Chapter 13.6.3, National and sub-national policies and institutions.

65 Article 6 is the section of the Paris Agreement dealing with "cooperative approaches" which includes market and non-market approaches. The principal provisions are Article 6.2, which addresses transfers of ITMOs between countries; Article 6.4, which establishes a project-based crediting mechanism similar to the Clean Development Mechanism;, and 6.8, which provides for non-market approaches.

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In addition, governments have implemented or are considering regulations that have implications for the VCM. For example, the European Parliament has adopted the provisional agreement on the Carbon Removals and Carbon Farming (CRCF) Regulation, which has created the first EU-wide voluntary framework for certifying carbon removals, carbon farming and carbon storage in products across Europe. Regulatory tools[66] have also been used to provide a signal of quality to the VCM and indirectly incentivise scaling up of high-quality emissions reductions and removals activities beyond the respective compliance schemes.

WWF's position on government economic policy instruments is set out in the following paragraphs:

I. WWF supports the creation and expansion of well-designed economic policy instruments, including the use of compliance markets, as a way to put a substantial and rising price on emissions, and to scale up emissions reductions and removals activities (such as through pricing emissions and establishing emissions caps).

Economic policy instruments employed should be complementary. Compliance markets, for example, should complement other policy measures such as taxes, standards, permits, bans and fiscal measures. The introduction or expansion of such regulated compliance markets may also complement the VCM, depending on the specific design of the policy instrument.

Corporations and other entities subject to compliance requirements under a regulated carbon market should nevertheless be encouraged to go beyond their legal requirements and finance additional activities with climate, nature and social benefits.

To be effective and credible, compliance markets require robust regulatory frameworks that ensure transparency and a high level of socio-environmental integrity. These frameworks must include robust accounting systems to avoid the double counting[67] of emission reductions and removals. The regulatory framework for compliance mechanisms must also ensure the following outcomes:

- Emissions units/credits transferred internationally are additional, real, unique and durable.
- Activities generate benefits for affected communities, implement a human-rights-based approach, respect land tenure rights, and are subject to free, prior and informed consent.
- Activities are aimed at capturing the "high-hanging fruit". The mechanisms should be used to direct resources to hard-to-abate sectors and emissions sources, rather than capturing only the easiest and cheapest emissions reductions.
- There is full transparency of activities, transactions and transfers of units/credits and financial flows, with a high bar for any confidentiality of information.

66 As part of its Carbon Pricing Act, the Singapore Government has developed a list of eligible host countries, carbon crediting programmes and methodologies that adhere to an eligibility criteria. The eligibility criteria requires carbon crediting programmes to meet seven internationally recognised principles to demonstrate high environmental integrity and represent emissions reductions or removals that occur within the timeframe specified under Article 6 of the Paris Agreement.

67 We acknowledge a single tonne can count on both a national ledger and a corporate ledger, as discussed here.


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II. WWF supports the development of a robust regulatory framework for Article 6 of the Paris Agreement.

Article 6 sets out the mechanisms through which countries can cooperate to make more ambitious nationally determined contributions (NDCs). Under Article 6, a country is able to transfer GHG emission reductions and removals that it has achieved to help other countries meet their climate targets. WWF supports the development of a robust regulatory framework for Article 6 so that the intended outcomes outlined above are achieved. This regulatory framework should include:

- Full transparency of activities, transactions and transfers of emissions units (i.e. ITMOs and MCUs) and financial flows under Article 6, with a high bar for any confidentiality of information.
- A full review of all activities under Article 6, with any inconsistencies addressed promptly, responsibly and transparently. There should be clear consequences for failing to address inconsistencies satisfactorily.
- Corresponding adjustments of emissions must be made by host parties by first international transfer, and be clearly reported. These adjustments should not be reversed after the ITMO is first transferred.

WWF supports the inclusion of the Warsaw Framework of REDD+ as an eligible non-market approach under the Article 6.8 mechanism.[68] Inclusion of REDD+ under Article 6.2 and the Paris Agreement Crediting Mechanism (i.e. Article 6.4) currently poses considerable challenges. There will be room for financing REDD+ activities under these market mechanisms where REDD+ activities effectively overcome the technical challenges to achieve the Article 6 requirements on quality and integrity. These include requirements regarding baselines, emissions trajectories, leakage, permanence and safeguards. REDD+ projects and programmes, focused on conserving and restoring tropical forests and ecosystems, can still generate positive outcomes for climate mitigation and adaptation without relying on market mechanisms. By including REDD+ under Article 6.8, there is a greater emphasis on pursuing community-led, rights-based approaches to financing forest conservation and sustainable development, especially in forested developing countries.

WWF urges countries and jurisdictions that are in a position to implement REDD+ to adopt an all-encompassing perspective on carbon finance and leverage the full suite of REDD+ financing scenarios, including from voluntary climate finance, Article 6 and results-based payments.

68 Article 6.8 is a non-market mechanism under Article 6. Parties and other stakeholders can propose non-market approaches, including those that have mitigation, adaptation, biodiversity and social benefits. These will be included in the Article 6.8 web-based platform with the goal of attracting finance, technology transfer or capacity building support from a range of potential sources, including governments, private sector, foundations, etc. This mechanism is suitable for results-based financing or other approaches such as readiness financing.

WWF supports contribution claims in Article 6 as means to deliver additional mitigation outcomes. Several provisions under Article 6 are opportunities to make *contribution claims*:

- MCUs are emissions units issued through the Paris Agreement Crediting Mechanism that are not subject to corresponding adjustments.[69] These units cannot be used toward NDCs or other international mitigation purposes (e.g. cannot be used by airlines under CORSIA). Parties and others can support these activities and make contribution claims that reflect the benefits resulting from the activities, without claiming that they offset any emissions, and without accounting for them against their inventory.

- Contribution emissions reductions (CERs)[70] carried over to the Paris Agreement Crediting Mechanism from the Clean Development Mechanism of the Kyoto Protocol that are not subject to corresponding adjustment, will result in double counting if the reductions count towards the host country's and the acquiring party's NDC, or are used for offsetting purposes by the acquiring party or entities. WWF advocates that parties and other entities can support these activities and make contribution claims that reflect the benefits resulting from the activities, without claiming that they offset any emissions, and without accounting for them against their inventory.

- ITMOs can also be used as part of the contribution approach. By giving them the same treatment as MCUs and non-authorised CERs above; this should result in additional emissions reductions and removals.

- The Paris Agreement Crediting Mechanism requires and Article 6.2 recommends that 2% of issued units under the respective mechanisms are cancelled for the purposes of delivering overall mitigation in global emissions (OMGE). Use of carbon markets should lead to enhanced ambition, and not be zero sum. Carbon markets should lead to cost savings for buyers of mitigation outcomes, and some of those savings should be reinvested toward enhanced ambition and/or action. WWF encourages participants of these mechanisms to make additional contributions to OMGE. These additional contributions to OMGE can also be made when road testing or piloting new carbon crediting methodologies, so as to increase the conservativeness of the project.

69 Corresponding adjustments refers to the adjustment of participating countries' emissions levels, as reported when they track the progress towards achieving their NDC, to reflect the transfer (export) or receipt (import) of mitigation outcomes.

70 Decision 7/CMA.4 (Guidance on the mechanism established by Article 6, paragraph 4, of the Paris Agreement) states: "29. The mechanism registry shall track: (a) A6.4ERs authorised for use towards achievement of NDCs and/or for other international mitigation purposes pursuant to paragraph 42 of the RMPs (authorised A6.4ERs); (b) A6.4ERs not specified as authorised for use towards achievement of NDCs and/or for other international mitigation purposes (mitigation contribution A6.4ERs), which may be used, inter alia, for results-based climate finance, domestic mitigation pricing schemes or domestic price-based measures, for the purpose of contributing to the reduction of emission levels in the host Party."

CHAPTER 4. WWF'S POSITION ON VOLUNTARY CARBON CREDITS

Carbon markets can serve as a vehicle to drive finance into climate mitigation activities including NbS interventions, and can simultaneously drive positive biodiversity and social impacts. However, carbon credits are subject to significant risks (see Box 1) and are not the only instrument to deliver carbon finance.

This section lays out core principles to guide WWF's involvement in activities relating to carbon credits, both when engaging with buyers of carbon credits and developing NbS projects involving carbon credits. This section significantly draws on and refers to Chapters 1-3. Given the dynamic and evolving nature of the VCM and scientific evidence, this position may be subject to further review in light of such developments.

For carbon credit buyers

I. Buyers should not use carbon credits to offset or substitute required emission reductions. Buyers can use carbon removal credits to neutralise their residual emissions.

WWF does not support the use of carbon credits from outside a company's value chains to offset or substitute required emission reductions[71], compensate for missed company targets, or as the basis of carbon neutrality claims prior to a company's net zero year. WWF supports neutralising residual emissions with durable carbon removals, as outlined in the SBTi Net Zero Standard, which can be considered a limited type of offset, as they come from outside the value chain. WWF advocates for transparent accounting and reporting of companies' emissions reductions separately from any removals and/or purchased carbon credits.

See Chapter 1.4 for additional information on carbon offsetting and neutralising residual emissions.

II. Buyers can use carbon credits within their BVCM portfolio with a contribution claim

WWF supports the limited use of high-integrity carbon credits within a buyer's BVCM portfolio, particularly as a means of providing measurement and verification of GHG reductions and removals. WWF advocates that companies make contribution claims on any purchases, instead of claiming to offset any GHG emissions.

See Chapter 1 for additional information on BVCM and contribution claims.

III. Buyers should meet minimum eligibility criteria in their climate mitigation strategy

Corporate institutions purchasing carbon credits should have robust strategies to mitigate their climate impacts and risks, adhere to the climate mitigation hierarchy,[72] have Paris-aligned targets to reduce their climate impact,[73] and demonstrate progress toward achieving their targets.

See Chapter 1 for additional information on corporate mitigation strategy requirements.

71 Company targets must be in line with limiting warming to 1.5ºC with no or limited overshoot

72 More on the mitigation hierarchy via SBTN and here.

73 Companies vary in size, capacity and level of climate impact. Not all companies have the ability to adhere to all the requirements. The SBTi has a pathway for small and medium- sized enterprises (SMEs) specifically for this reason.

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IV. Buyers should not trade purchased credits on the open market except where the integrity of the buyer can be verified.

While secondary trading (see glossary) may bring liquidity, price efficiency and risk reduction, robust governance is needed to ensure the integrity of transactions in secondary trading (e.g. funds are delivered to the right beneficiaries and double counting is avoided). Trading also brings the final user of the carbon credit further from the credit origination, and makes it more challenging for the buyer retiring the credits to understand the financial and socio-environmental needs of the project. WWF does not support interventions generating carbon credits to be traded on the open market (including secondary trades, securitization and derivatives), except where the integrity of the buyer can be verified and credits are immediately retired upon sale to the end buyer. Where carbon credits are resold, the price of transactions and quality of the credits must be publicly disclosed.

For carbon credit projects [74]

V. Projects should use a human-rights-based approach, ensuring fair, equitable sharing of benefits throughout the project cycle[75]

Activities related to carbon credits must respect and uphold human rights, including the rights of Indigenous Peoples, local communities, women and other rights-holders directly or indirectly affected by projects. FPIC is required for both Indigenous Peoples and local communities, and benefits must be shared justly and equitably with those affected by the project or contributing to its climate benefits.

See Chapter 2 for additional information on NbS for climate mitigation.

VI. Projects should enhance biodiversity and deliver social benefits, alongside climate mitigation

In addition to achieving climate benefits, carbon credit projects should take into account and give preference to areas of importance for biodiversity. These may include Key Biodiversity Areas, High Conservation Value Areas and areas of particular importance for restoration as defined under national plans.

Preference should also be given to projects that protect or restore areas with community and livelihood benefits.

See Chapter 2 for additional information on benefit sharing.

74 For the purpose of this paper "carbon credit projects" mainly include programs, such as in the case of jurisdictional REDD+ programs.

75 A human rights-based approach to biodiversity is one that furthers the realization of human rights through biodiversity actions, by avoiding harm to human rights, taking action based on principles of human rights, and achieving improved human rights outcomes.

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BOX 2. Interlinkages between biodiversity and carbon crediting

Biodiversity credits are interlinked with nature-focused carbon credits. WWF's position is that nature-focused carbon credits must be of high environmental integrity, delivering measurable net gains for people and nature (in most cases biodiversity-related but also encompassing other ecological indicators) as a core requirement. Similarly, high-integrity biodiversity credit projects could, in certain cases, also deliver carbon reductions and removals, but this is not a requirement in the same way.

Nonetheless, the primary objective of carbon credits and biodiversity credits may differ. While nature-focused carbon credits typically bring co-benefits for biodiversity, these may not fully capture the biodiversity impact that biodiversity credits aim to quantify and certify. Particularly in the context of corporate purchasers using credits to meet sustainability goals, there is a risk of double counting if the biodiversity benefits of carbon credits and biodiversity credits are bundled (where biodiversity and carbon credits derived from the same project are sold together) or stacked (where biodiversity and carbon credits derived from the same project are sold separately). This could undermine the WWF position on high-integrity carbon credits. WWF does not support biodiversity credits being bundled or stacked with carbon credits, unless the risk of double counting can be eliminated; we aim to carry out further analysis of these risks.

VII. Any carbon credits generated must achieve measurable, demonstrable and verified climate mitigation outcomes

Projects that generate carbon credits must achieve measurable, demonstrable and verified climate mitigation outcomes.[76] Carbon projects should align to internationally recognised carbon standards[77] and methodologies.[78] WWF does *not* endorse any particular voluntary carbon market standard.

In addition, projects must ensure transparency in measurement, reporting and verification. Information about the project should be shared with stakeholders and made available to the public to support research and evaluation efforts.

VIII. Carbon credits used for residual emissions must be additional and durable

Carbon credits used for residual emissions must be durable[79] and provide additionality (the measured removal is directly attributed to the project activity and would not have happened otherwise). To address durability (that the carbon remains sequestered long-term), projects must estimate any reversal risks and compensate for them should they materialise. WWF supports the use of permanence risk mechanisms including buffer pools that are sufficient to more than compensate for the carbon credit mitigation units credited for, and in-kind insurance, which can cover reversals should they occur.

For both buyers and projects

IX. Credit prices should cover the full costs of interventions

Carbon finance should aim for equitable pricing across regions (e.g. across global north and south) for comparable interventions. The carbon price should reflect the full costs of developing high quality interventions. For instance, to implement high quality NbS interventions (those that incorporate the principles outlined in Chapter 2), carbon prices well above \$30/tCO2 would be needed[80]. To address the risks of low-quality, cheap credits (see Box 1), we need to incentivise credible and high quality outcomes, and transparently show the costs of implementation and how the proceeds are being shared.

X. Comprehensive and transparent governance is required and conflicts of interest must be addressed

Governance arrangements must be in place which provide publicly available, comprehensive and transparent information on climate and nature impacts; publicly available benefit-sharing arrangements with Indigenous Peoples, local communities, women and other rights-holders; and a robust monitoring, reporting, and verification system. Risks such as land tenure security and inequitable benefit-sharing, absence of FPIC and socio-environmental safeguards, inflated baselines, leakage, non-permanence and non-additionality must be analysed and adequate steps set in place to avoid or address them throughout the project duration.

Carbon crediting initiatives should be aligned with ISEAL credibility principles,[81] which sets out best practices in areas such as stakeholder engagement, transparency, impartiality and reliability. Full compliance with the WWF Environmental and Social Safeguards Framework (ESSF)[82] is required.

Potential conflicts of interest[83] related to carbon credit projects or programmes should be mapped and addressed. Partners of the carbon credit projects or programmes should align with WWF values, integrity requirements and Environmental and Social Safeguards. Projects should ensure that all actors involved in measuring, validating and ensuring FPIC are non-interested parties and do not have incentives to support approval or maximisation of credits, and undergo due diligence.

76 Measurement of climate mitigation outcomes should be in tonnes of CO2e (carbon dioxide equivalent).

77 Selected carbon and other GHG emissions standards must be appropriate for a jurisdictional approach or, in the case of smaller projects, a grouped or 'nested' approach where projects work toward jurisdictional integration with consistent MRV and avoidance of double counting.

78 Where permitted by national and local regulations, law and context. For example, some countries (e.g. Indonesia) have their own national inventory systems which developers need to abide by.

79 WWF currently does not have a position on the extent of durability of removals for neutralizing residual emissions

80 Ometto et al. 2022. Cross-Chapter Paper 7: Tropical Forests. In IPCC AR6 WG2. doi:10.1017/9781009325844.024.

81 ISEAL Credibility Principles set best practice for voluntary certification initiatives such as FSC and MSC, many of which WWF has been part of establishing.

82 WWF. (n.d.). Environmental & Social Safeguards Framework (ESSF).

83 For instance, projects should avoid paying carbon credit project developers according to the number of credits generated.

SUPPLEMENTARY READING

Beyond Science-Based Targets: A Blueprint for Corporate Action on Climate and Nature (December 2020): Corporate climate mitigation blueprint that describes the *contribution approach*, a process for businesses to set and implement science-based targets compatible with limiting global temperature rise to 1.5°C before making financial commitments that aim to have positive impacts on climate, nature and people.

Beyond Carbon Credits: A Blueprint for High-Quality Interventions that Work for People, Nature and Climate (November 2021): Companion report with guidance on implementing high-impact and high-quality nature-based solutions for climate mitigation.

Integrity Principles for Benefit Sharing in Forest NbS for Climate Mitigation (November 2022): WWF-proposed principles for how benefits of nature-based solutions can be shared in a way that is fair, accountable, rights-based and effective.

Guia de Tratos Justos by WWF-Colombia (May 2024): An updated guide to support just, equitable benefit-sharing mechanisms for REDD+ voluntary carbon projects in the Colombian Amazon and Pacific regions.

Operational considerations for the integrity principles for benefit sharing mechanisms in nature-based solutions (April 2024): This paper demonstrates the application of WWF's Integrity Principles for benefit sharing mechanisms (BSMs) in nature-based solutions (NbS).

Responsible Finance for Blue Carbon Ecosystems (November 2023): This paper seeks to clarify WWF's position and recommendations for advancing sustainable blue carbon investment and financing opportunities.

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LIST OF ABBREVIATIONS

BVCM	Beyond value chain mitigation
COMIFAC	Central African Forest Commission
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
ESSF	Environmental and Social Safeguards Framework
FLAG	Forests, Land & Agriculture
FPIC	Free, prior and informed consent
GHG	Greenhouse gas
ICAO	International Civil Aviation Organization
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IPCC AR6	IPCC Sixth Assessment Report
ITMOs	Internationally transferred mitigation outcomes
MCUs	Mitigation contribution units
MRV	Measurement, Reporting and Verification
NbS	Nature-based solutions
NDCs	Nationally determined contributions
OMGE	Overall mitigation in global emissions
SBTi	Science Based Targets initiative
SBTi FLAG	SBTi Forest, Land and Agriculture Guidance
UNCBD	United Nations Convention on Biological Diversity
UNFCCC	United Nations Framework Convention on Climate Change
VCM	Voluntary carbon market

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