TECHNICAL GUIDANCE

STEP

4

ACT



SCIENCE BASED TARGETS NETWORK

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2. These guidelines are intended to direct voluntary corporate actions in line with company commitments to science-based targets for nature and do not represent a regulatory framework.

3. The guidelines are written in technical language; the primary audience of this document should have the technical knowledge necessary to engage with this content.

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"Step 4: Act helps companies move from target-setting to action — offering practical guidance, tools, and resources that help companies design effective implementation plans."

Introduction

WHAT IS STEP 4?

The Science Based Targets Network (SBTN) helps organizations address nature loss by setting rigorous science-based targets for nature, guided by a five-step framework: materiality assessment (Step 1), prioritization of impacts and locations (Step 2), target setting (Step 3), implementation (Step 4: Act), and progress tracking (Step 5). Step 4 comprises this document (the "Guidance") and two accompanying resources to help companies accelerate target adoption and implementation. Step 4 aligns with emerging reporting standards and transition planning frameworks, supporting planning at the corporate level and at the place-based scale required for target implementation.

1. **Guidance:** Provides guidance on implementation safeguards, introduces the response options database and corporate action plan resources, and explains how to use these resources effectively to achieve positive outcomes for business and nature.

2. **Response options database (the "Database"):** Helps companies rapidly identify efficient, equitable, and holistic pathways across all SBTN target scopes (Ocean V1, Land V2, Freshwater V2) and Science Based Targets initiative (SBTi) Forest, Land and Agriculture (FLAG) targets, drawing on evidence from the Freshwater, Land, Ocean, and Biodiversity Hubs, with links to case studies, methodologies, and references for tailoring options to specific contexts.

3. **Corporate action plan template (the "Template"):** Co-developed with businesses to translate technical targets into practical implementation plans covering costs, resources, governance, stakeholder engagement, data collection, and reporting.

WHY IS STEP 4 NEEDED?

By clarifying "how much, where, and when," SBTN fills a key gap in the corporate sustainability landscape. Demand for science-based targets for nature is growing rapidly as companies recognize their value in managing nature-related risks and strengthening operational resilience. However, substantial input from corporate sustainability officers showed that companies need greater clarity on SBTN expectations for credible target implementation—particularly in terms of identifying feasible actions, building internal buy-in, and integrating nature into broader strategies.

HOW DOES STEP 4 SUPPORT COMPANIES?

Step 4 provides practical guidance and tools to help companies design and deliver effective action plans.

- *Before and during target setting:* These resources help companies assess target implementation feasibility to build internal support (i.e., delivery pathways, costs, risks) and facilitate target setting.

- *After target setting:* These resources help companies turn targets into coherent, governed, and adaptable action plans across multiple interrelated pressures at once (e.g., by helping to address climate and nature risks simultaneously) for internal use (guiding implementation) and external use (reporting to stakeholders such as investors and reporting frameworks).

IS VALIDATION OF STEP 4 REQUIRED?

No. Companies must validate Steps 1–3 to claim science-based targets; those steps use prescriptive methods to determine how much, where, and by when action is needed in order to stay within Earth's limits. On the other hand, Step 4 is deliberately non-prescriptive, since effective implementation varies by business model, geography, and governance. SBTN provides foundational guidance rather than defining or validating a single "right" approach, leaving room for company-specific innovation and adaptation to local context—with no new validation requirements.

HOW DOES THIS BUILD ON PRIOR STEP 4 RESOURCES?

This release builds on the initial response options and FAQs developed as part of SBTN's V1.0 release, expanding coverage to match developments in target setting and evidentiary support for assessing actions and structuring action plans.

HOW SHOULD THESE MATERIALS BE USED?

Companies should consult this guidance first, as it introduces both resources and recommends how to use them to safeguard nature in planning, then move iteratively between it, the response options database, the action plan template, and Steps 1–3 to build a coherent implementation plan. Together, these Step 4 materials function as a go-to solution for setting and achieving science-based targets: They give companies comprehensive, up-to-date response options and supporting data aligned with SBTN's expanded target coverage, and help translate targets into plans that align with wider nature frameworks like the Taskforce on Nature-related Financial Disclosures (TNFD). A broader landscape of nature action guidance also exists and can be consulted alongside these resources as helpful (see appendices)—but SBTN has already synthesized the best available guidance on response options, drawing on other frameworks and situating them specifically within the context of science-based targets for nature.

TRACKING TARGET PROGRESS

Step 4 provides initial resources on target monitoring to support companies in evaluating and adjusting implementation plans to maximize outcomes in target-setting locations. It also provides companies with tools that can be used to inform reporting, secure funding, and gain stakeholder support. However, further guidance on monitoring, reporting, and achievement of science-based targets (Step 5) must be developed collaboratively with other system actors, leveraging existing indicators, disclosures, and assurance mechanisms. Further work on this topic is pending resourcing.

List of abbreviations

AR3T—Avoid, Reduce, Regenerate, Restore, Transform (SBTN Action Framework)

CBD—Convention on Biological Diversity

FLAG—Forest, Land and Agriculture (SBTi)

FPIC—Free, prior, and informed consent

GBF—Kunming–Montreal Global Biodiversity Framework

IPBES—Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

MRV—Measurement, reporting, and verification

SBTN—Science Based Targets Network

SBTi—Science Based Targets initiative

TNFD—Taskforce on Nature-related Financial Disclosures

WEF—World Economic Forum

WRI—World Resources Institute

WBCSD—World Business Council for Sustainable Development





"Step 4: Act supports companies at different stages of their target-setting journey, from early feasibility assessment to detailed implementation planning."

Step 4 corporate use cases

Companies expressed the need for these materials at two key phases during the target-setting and implementation process: prior to adopting science-based targets and following the validation of science-based targets for nature.

Before and during target setting, the resources can be used to:

- Build internal confidence: facilitate the preliminary evaluation of target feasibility prior to formal commitment to build internal buy-in and secure leadership support;
- Facilitate target setting: support companies in meeting the validation requirements of Step 3.

For companies just starting their target-setting journey, the Step 4 resources can be used for preliminary action planning needed to ensure target feasibility and secure internal buy-in, prior to setting science-based targets. Companies at this stage are likely to find both the implementation guidance and response options database helpful for identifying key considerations for target implementation and highlighting potential response options linked to impacts and co-benefits across impact areas. Together, these resources may inform strategic opportunities (in particular, potential alignment with existing climate and nature strategies), form the basis for business case development for nature action, and support broader socialization of science-based targets among key internal and external stakeholders. In some cases, an initial action planning exercise (using the Template) also helps companies meet Step 3 validation requirements, for example, by supporting the completion of roadmaps associated with Landscape Engagement targets.

For companies that have already set targets, the resources can be used to:

- Develop target implementation plans: build on existing assets developed via preceding steps to develop detailed plans;
- Track activities and progress and adjust implementation plans where needed;
- Guide collaboration, consultation, and reporting to internal and external stakeholders;
- Facilitate transition and implementation planning: align with broader voluntary and regulatory frameworks.

For companies that have adopted science-based targets for nature, Step 4 can help to design and implement action plans and/or test and build on existing plans for target implementation. Companies at this stage are likely to find all Step 4 resources valuable (the Guidance, response options, and action plan template). Companies adopting science-based targets may have a range of needs, with some locations already having established ideas for target implementation actions, while other locations setting science-based targets may need more guidance. These resources help companies integrate key safeguards for nature and people into their implementation plans, and to align these plans with emerging transition planning frameworks.

For companies preparing to disclose targets, the Step 4 resources can support credible target communications through the development of an implementation plan. However, use of these resources in their current format does not itself establish legal compliance or provide assurance over the action plan. Additionally, Step 4 can support companies in developing a record-keeping system for consolidating actions and outcomes, helping them generate meaningful outputs for internal and external stakeholders. The outputs of Step 4 can also form the basis of monitoring and evaluation systems for science-based targets to inform target progression, relevance to broader corporate nature and climate strategies, and reporting to key stakeholders (e.g., reporting frameworks, investors, and non-governmental organizations (NGOs)).

This guidance sets out foundational safeguards, then describes what the resources can be used for, what they contain, and how they can be used effectively to safeguard nature. Their practical use is illustrated using fictitious case studies (see appendices) from Ursus Nourishment (Land and Freshwater targets) and Silmaril Seafoods (Ocean targets).



SBTN's Action Framework

SBTN's **Action Framework ("AR3T")** forms the foundation of Step 4 guidance on company actions for nature, helping companies both reduce negative impacts and contribute to positive outcomes for nature. Its aims are to:

1. Avoid and Reduce pressures leading to nature loss;
2. Regenerate and Restore working and natural systems so that nature can recover;
3. Transform systems to address the drivers of nature loss.

The AR3T framework (see Box 1 for detailed descriptions) was developed from the conservation and mitigation hierarchy[1] and has been extended to include transformative action, which covers the ways companies can contribute to required systemic change inside and outside their value chains. The framework highlights the importance of avoiding and reducing negative impacts as a first priority. However, it also encourages companies to take proactive steps to regenerate and restore nature, contributing toward positive changes.

The important differences that set apart the AR3T framework and the conservation and mitigation hierarchy are outlined below.

- "Transform" actions are included in the AR3T framework, because many actions needed to avoid, reduce, restore, and regenerate nature cannot succeed at scale without changes to the organizational, financial, technological, policy, and social systems in which companies operate. Transform actions help companies to address this context to make the scaling of sustainability actions and achievement of societal nature-positive goals possible.

- Offsetting is not permitted in SBTN methods given the challenge of achieving "no net loss" of biodiversity and the risk of perceived license to continue negative nature impacts. Instead, the Action Framework incentivizes direct, localized action by companies to address their impacts where the need for nature is greatest. However, remediation is allowed in limited circumstances, i.e., for residual impacts after all measures to avoid and reduce impacts have been exhausted. For example, in the No Conversion of Natural Ecosystems Land target, unavoidable conversion by mining, infrastructure, construction, and extractives (MICE) sectors between 2030 and the target date must be remediated. This is distinct from offsetting, because the intent is not to compensate for ongoing or future impacts elsewhere, but to rectify specific impacts before target achievement.

1 https://www.ifc.org/en/insights-reports/2012/ifc-performance-standard-6

The AR3T framework has been integrated into the design of the science-based targets for nature, with some targets specifically focusing on incentivizing avoidance and reduction, and others focusing on regeneration, restoration, and transformation.



Figure 1: Transform, Restore & Regenerate, Reduce and Avoid

AVOID

Prevent impact from happening in the first place; eliminate the impact entirely. This applies to new or potential impacts.

REDUCE

Minimize impacts, but without necessarily eliminating them. This applies to existing impacts.

REGENERATE

Take actions designed within existing land uses to increase the biophysical function and/or ecological productivity of an ecosystem or its components, often with a focus on a few specific nature's contributions to people (e.g., regenerative agriculture often focuses on carbon sequestration, food production, and nitrogen and phosphorus retention) (Source: Adapted from Food and Land Use Coalition, 2019).

RESTORE

Initiate or accelerate the recovery of an ecosystem with respect to its health, integrity, and sustainability, with a focus on permanent changes in state (Source: Adapted from Society for Ecological Restoration).

TRANSFORM

Take actions contributing to system-wide change, notably to alter the drivers of nature loss, e.g., through technological, economic, institutional, and social factors, and changes in underlying values and behaviors (Source: Adapted from Intergovernmental Panel on Climate Change (IPCC), 2012 and IPBES, 2019c).

Source:
Adapted from SBTN Initial Guidance for Business, 2020

Box 1: SBTN's Action Framework.

Important clarifications about the Action Framework

DOES THE ACTION FRAMEWORK NEED TO BE APPLIED SEQUENTIALLY?

Companies may pursue actions across AR3T concurrently, but Avoid and Reduce actions remain the priority, and Regenerate, Restore, or Transform actions must not substitute for feasible action to avoid and reduce negative pressures. Some science-based targets specifically emphasize different elements of the Action Framework, encouraging companies to simultaneously address negative impacts through Avoid/Reduce actions while creating positive impacts through Regenerate, Restore, or Transform actions via other targets. In other cases, such as the Freshwater targets, companies are encouraged to consider all aspects of the Action Framework to achieve their targets. For all science-based targets, companies should develop a clear view of their action plan prior to implementation, incorporating all applicable elements of the AR3T framework. This ensures that a company is genuinely applying the mitigation hierarchy in aggregate: planning to avoid and reduce as much negative impact as possible as a priority, then incorporating regeneration, restoration, and transformation to support positive impacts.

WHAT SCALE SHOULD BE USED FOR PLANNING AND IMPLEMENTING THE AR3T FRAMEWORK?

Companies should consider the appropriate spatial scale of actions when planning for target implementation. While some actions may occur at the corporate scale, actions are most effective when they are deployed at a more ecologically relevant scale, mirroring the company's impacts on nature. This scale can often be guided by the target itself. For example, a target set at the production unit level will require the implementation of management actions at that scale, while landscape/seascape/basin-level targets require more systemic actions, necessitating close collaboration with other stakeholders in that location.

WHAT DO WE MEAN BY "TRANSFORM"?

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, 2019) defines transformational change as a fundamental, system-wide reorganization across technological, economic, and social factors, including paradigms, goals, and values. Therefore, in alignment with this definition, Transform actions can be considered to be those that address the technological, organizational, financial, policy, and social conditions that drive nature loss (with these drivers influencing the key environmental pressures that the targets focus on). These actions can determine the success of Avoid/Reduce/Regenerate/Restore actions in achieving their respective science-based targets for nature. Transformative actions taken by companies can also significantly impact broader company strategies by influencing short- and long-term decision-making, investment and business models, valuation of nature, and contributions toward broader societal goals.

Transformative actions can occur at any level—from internal operations and procurement to supply chains, whole sectors, and governments—and may be required before, during, or after other actions take place, in order to enable, catalyze, and augment change. Crucially, transformative actions cannot be conducted alone; companies must work collectively with others in the locations in which they operate and which they source from.

Examples of transformative actions include:

- creating new partnerships across supply chains and sectors;
- improving land and water management through collective action initiatives;
- providing financial support to farmers who adopt new practices;
- advocating for increased ambition for nature and climate within policy frameworks;
- building traceability systems to track and reward nature outcomes;
- investing in circular agricultural systems and business models.

SBTN does not prescribe an exhaustive list of Transform actions; rather, the response options database includes indicative options that are supported by research. There are many more effective options, and there is substantial scope for innovation. Foundational guidance to support transformative actions by companies includes the IPBES Transformative Change Assessment (2024) and Business and Biodiversity Assessment (2026).

In many instances, individual response options could fall under Transform and other AR3T categories simultaneously (e.g., investments in circular agricultural systems can Avoid and Reduce negative impacts and potentially help to Regenerate and Restore nature). The database highlights the primary classification of actions and encourages users to think about the range of functions they provide when tailoring them to their context.

HOW DOES THE ACTION FRAMEWORK RELATE TO NATURE POSITIVE?

"Nature positive" is a global societal goal to "Halt and Reverse Nature Loss by 2030 on a 2020 baseline, and achieve full recovery by 2050." Delivering the nature positive goal requires "measurable net-positive biodiversity outcomes through improvement in the abundance, diversity, integrity and resilience of species, ecosystems and natural processes."[2] This goal aligns with the mission of the Kunming–Montreal Global Biodiversity Framework (GBF).

While SBTN's methodologies and Action Framework provide the primary mechanisms for companies delivering on their responsibilities toward the goal of nature positive, this (and other goals in the GBF and other global frameworks) is a broader societal goal rather than an individual corporate goal. For this reason, SBTN does not enable companies to make claims related to the achievement of nature positive. However, SBTN strongly encourages companies to collaborate with government, civil society, and local stakeholders in key landscapes and seascapes, to demonstrate their contributions to a global nature-positive outcome.

The Action Framework is integral to all Step 4 resources, and its application is further explained in the following sections.

2 https://www.naturepositive.org/app/uploads/2024/02/The-Definition-of-Nature-Positive.pdf

"Environmental and social safeguards are embedded in SBTN's methodologies, helping companies avoid negative impacts and harms and promote benefits for nature, including people."



Safeguards

Safeguards are essential mechanisms for avoiding negative impacts and harms, and promoting benefits for nature, including people. Both environmental and social safeguards are embedded in SBTN's methodologies and are critical to consider in action planning. These methodologies include two main safeguard categories:

- **Requirements** (i.e., steps associated with validation criteria)—Steps 1–3;
- **Recommended actions,** such as the use of frameworks, data, and other resources—Steps 1–4

There are no additional validation requirements in Step 4. However, SBTN provides a range of recommendations, best practices, and resources to help companies design effective and equitable nature-based action plans. These build on the foundational safeguards afforded by SBTN's wider target-setting methodology, beyond the scope of Step 4, including guidance and requirements that are directly referenced in target setting (e.g., Landscape/Seascape Engagement Roadmaps).

Social safeguards overview

Progress on science-based targets for nature depends on human rights being respected and upheld in company implementation plans. Stakeholder engagement and dialog throughout the process of target setting helps to distribute the costs and benefits of sustainability action and ensure the persistence of target achievement over time.

Social safeguards are built into the approach to target setting. For example, when prioritizing locations for target setting (in Step 2), companies are first asked to consider the rights and vulnerability of Indigenous peoples and local communities, existing relationships and collaborations with local stakeholders—including local government and civil society—and potential risks and opportunities associated with target setting and achievement. In Step 3, companies are asked to go further and explicitly commit to stakeholder consultation (e.g., by applying the Freshwater model consultation approach), participatory planning in landscape contexts (e.g., when setting landscape or seascape targets), and upholding human rights when developing and implementing all science-based targets.

Appropriate engagement during all stages of target setting increases the likelihood that:

- Those most directly affected by the outcomes will see the targets and metrics as credible and as reflective of the positive outcomes or risks that are of greatest significance to their interests, wellbeing, and welfare.
- Affected stakeholders become partners in data collection, analysis, and learning, which is especially important when they are the ones best positioned to gather, provide, and make sense of certain types of data.
- Relationships that contribute to building collective action for the achievement of science-based targets are established with affected stakeholders.
- There will be accountability for outcomes because of clarity and transparency about how they will be measured and evaluated. This requires transparency about decision-making processes, actions, or omissions, and putting redress mechanisms in place.
- Companies' climate and nature-focused strategies and action plans will not expose them to reputational, ethical, legal, operational, or regulatory risks.

Stakeholder engagement and science-based targets for nature 2024.

As companies move into implementation, after setting and validating their targets, it is critical that they emphasize multi-stakeholder collaboration and deepen their understanding of target contexts. This helps ensure that they are ready to work within their value chain and with other local stakeholders to develop solutions and action plans that maximize co-benefits across targets and actors.

Note that while these resources are presented as part of Step 4, companies may wish to use them earlier in the target-setting process, in line with broader applications of this guidance, as described above.

Social safeguards recommendations

Local stakeholders, including Indigenous Peoples and other local communities, as well as government and civil society, represent critical partners with whom to work when setting and striving to achieve science-based targets—as is the case with other forms of environmental management. To set equitable and effective science-based targets, we recommend that companies give special consideration to the rights, perspectives, values, and goals of local stakeholders. This includes incorporating other ways of knowing and traditional ecological knowledge (TEK).

We recommend that companies engage with stakeholders and conduct additional research on their value chain locations, in order to understand local social priorities and collaboration opportunities for target setting. This can help to determine areas in which local stakeholders may be able to provide local knowledge that can support management and implementation decision-making, contribute to assessment plans, and identify locally relevant indicators that may strengthen target monitoring and progress.

This form of engagement can also offer insights into how benefit sharing from nature actions can be enhanced—for example, by identifying opportunities to address past impacts or grievances, address vulnerability to potential future impacts, or enhance nature's contributions to people or ecosystem services valued by Indigenous Peoples and local communities.

Companies should refer to Appendix 2 for tools to support the implementation of social safeguards. The appendix includes a stakeholder mapping template—which enables companies to more effectively identify stakeholder groups and their representatives, and seek to understand the distinct ways they may need to be engaged with—and a social safeguards checklist, which presents key questions to shape ongoing stakeholder collaboration and action planning.

ADOPT A RIGHTS-BASED PERSPECTIVE

We recommend that companies preparing to implement targets consider social and rights-based perspectives, such as those captured within the GBF and the United Nations Sustainable Development Goals (UN SDGs). At the same time, broader narratives around societal goals or corporate sustainability may mask underlying impacts on the human rights of marginalized groups.

These efforts should place particular emphasis on Indigenous Peoples, local communities, and other affected communities, i.e., those who have been affected by company activities or value chain relationships. Engaging with these stakeholders during the prioritization process allows companies to meet their responsibilities as laid out in (a) the UN Guiding Principles on Business and Human Rights (UNGPs), and (b) the Organisation for Economic Co-operation and Development (OECD) Guidelines for Responsible Business Conduct, as the global, authoritative standards of responsible business conduct with regard to impacts on people and the planet. This, in turn, enables companies to align their practices with the growing number of due diligence regulations and reporting requirements based on these international standards.

Companies can use this perspective to assess whether certain locations also present elevated social vulnerability, rights-related sensitivities, or historical inequities that should inform engagement planning.

PREPARE FOR EFFECTIVE STAKEHOLDER ENGAGEMENT

We recommend that companies consult SBTN's stakeholder engagement guidance, which contains guidance on how to develop foundational practices to prepare for stakeholder engagement, under the subsections "Preparedness for engagement," "Designing and conducting engagement," and "Enabling participation." This guidance is consistent with international standards of business conduct and the core principles of human rights and environmental due diligence, as well as underlying Justice, Equity, Diversity, and Inclusion (JEDI) considerations.

Companies are also recommended to engage with local civil society organizations to build on existing partnerships and trust-based relationships between organizations and local communities. Where possible, existing relationships, capacities, and competencies within civil sector organizations and local governance bodies should be leveraged, rather than relying on internal company resourcing alone.

IDENTIFY RELEVANT STAKEHOLDERS AND SOCIAL CONTEXTS

To gain an initial understanding of these stakeholders, companies may draw on internal company or supplier knowledge of the areas in which they work, particularly to identify affected communities of workers and local communities. They can also consult resources that identify areas traditionally owned, occupied, or otherwise used by Indigenous Peoples and local communities, such as the ICCA Registry, Global Land Governance Index, and LandMark, and data on Other Effective Area-Based Conservation Measures. These datasets represent some of the best available resources at the global level but do not replace more accurate regional and local sources of information. Companies should respect localized definitions of indigeneity and pre-existing measures that have not historically been recognized for their conservation values, such as sacred natural sites. Companies can use datasets like the Critical Natural Assets dataset, in addition to those identifying areas of cultural importance to Indigenous Peoples, local communities, or other affected stakeholders.

MAP STAKEHOLDERS

We recommend that companies carry out stakeholder mapping exercises, as they can lay the foundations for collaboration with local stakeholders. We recommend that companies identify the local stakeholders who are particularly critical to engage with within each location, the rights of Indigenous Peoples and other marginalized communities, and existing stakeholder relationships as part of their mapping exercise.

Robust stakeholder mapping enables companies to more effectively and clearly distinguish subgroups, identify potentially highly impacted groups, and seek to understand the distinct ways in which these groups may need to be engaged with. In practice, such mapping can provide companies with a more complete understanding of stakeholders who:

- may be indigenous to a place where companies undertake operations or source materials, even if they have been displaced and/or dispossessed;
- may identify with a race or ethnicity, socioeconomic class, sexual orientation, or gender identity that increases the likelihood of underrepresentation and marginalization;
- may have shared dependencies on nature alongside the company's dependencies, particularly, in areas with low-integrity ecosystems, important ecosystems, or areas of water stress, and may face potential impacts of nature loss and degradation of their basic rights and welfare;
- may be affected positively or negatively by the company's responses to nature loss and degradation, including mitigation and adaptation strategies, and any related innovations or changes in business model;
- may be important contacts for the development of new opportunities for addressing nature loss and degradation, and bring added value to the realization of such opportunities.

Biodiversity safeguards

As explained in SBTN's recent foundational paper on biodiversity action via science-based targets for nature, many biodiversity safeguards are explicitly integrated into the SBTN framework. The framework provides a process for companies to reduce their pressures on biodiversity—which correspond directly to IPBES's direct drivers—through science-based targets for nature, and contribute to biodiversity protection and restoration through a systematic process informed by the best available science. To that end, biodiversity is not addressed as a separate target but is instead embedded across target-setting mechanisms aimed at reducing pressures on land, freshwater, and marine systems.

Within the SBTN methods, biodiversity safeguards can be placed into three primary categories: early integration of biodiversity in target-setting strategies, adherence to the AR3T framework, and consideration of biodiversity outcomes in action planning. Below we describe how these safeguards are integrated into Steps 1–3 of the SBTN methods and where there are opportunities for companies to further their work on this topic as part of target implementation.

EARLY INTEGRATION OF BIODIVERSITY IN TARGET SETTING

In Step 1, companies conduct a high-level environmental materiality screening across the company operations and upstream value chain, including economic activities and commodities most likely to have an impact on biodiversity. Following this initial screening, companies incorporate state-of-nature datasets, including species and ecosystem biodiversity metrics, and assess business dependencies on nature. In Step 2, they prioritize locations for target setting across different realms, emphasizing locations of high biodiversity importance. Finally, in Step 3, science-based targets are designed to incentivize actions addressing pressures within land, freshwater, and marine systems linked to biodiversity loss.

Adherence to the AR3T framework

The SBTN Action Framework is integral to both the design of science-based targets and target implementation planning, and is particularly important with regard to protecting outcomes for biodiversity alongside the key target indicator. Below we explain how each part of the AR3T framework is critical for enhancing biodiversity outcomes and articulate how this is emphasized in the design of science-based targets. However, it is important to remember that companies can and should consider actions across the mitigation hierarchy when implementing targets.

Avoidance is arguably the most critical aspect of the Action Framework for biodiversity. By preventing impacts on critical and natural habitats, and other areas of high biodiversity significance, companies can play an important role in global biodiversity conservation. Examples of targets that emphasize this portion of the mitigation hierarchy include the No Conversion of Natural Ecosystems Land target, the Highly Hazardous Pesticide Cessation Freshwater target, and the Avoid and Reduce Overexploitation Ocean target under the Cease to Source pathway. In all cases, a complete alteration in operations or sourcing practices may be necessary to protect sensitive species and habitats, and prevent intrinsically irreversible or highly impactful consequences for nature.

Reduction is also very important to improve biodiversity outcomes in cases where some impacts are unavoidable. Targets in this category ask companies to adapt their activities in a specific geographic area, such that their impacts are reduced to sustainable limits within the regional ecological capacity, while operations continue in the area. These targets often have target periods of five years or more, and companies are expected to maintain their improvements after the targets are achieved. This category covers most targets, including the Working Land Regeneration and Restoration target (excluding its Land Footprint Reduction option, as noted below); Freshwater Quantity, Freshwater (Nutrient) Quality, and Freshwater (Pesticide Impact Reduction) Quality targets; and the Avoid and Reduce Overexploitation (excluding the Cease to Source pathway, as noted above), Protect Structural Habitats, and Reduce Risks to Endangered, Threatened, and Protected (ETP) Marine Wildlife Populations Ocean targets. When implementing these targets, companies can seek opportunities to mitigate biodiversity, such as reducing fertilizer and pesticide use to protect pollution-sensitive species or by altering the timing of economic activities to avoid the greatest impacts on biodiversity, such as avoiding breeding or migratory seasons.

Regeneration, restoration, and transformation move beyond mitigating negative impacts to focus on actions that drive positive outcomes needed for companies to remediate impacts on nature that cannot be avoided or reduced, and contribute to the achievement of societal goals, such as the nature positive goal. Within the SBTN framework, these actions are emphasized in targets focused on landscape/seascape initiatives, for which companies engage in collaborative decision-making processes alongside other local and jurisdictional stakeholders. These actions are also the focus of the MICE sector remediation pathway, through which companies work to address unavoidable loss from their mining or extractive operations. Taking action at the wider landscape or seascape level has the added benefit of allowing companies to act at the scale required to create more systemic changes for biodiversity outcomes

Actions taken within “working lands” and other ecosystems predominantly used by humans can be considered regenerative actions, the goal of which is to increase ecosystem services. Many of these actions—for example, implementing conservation buffers in agricultural lands—can have benefits for ecosystem services, such as pollination, as well as creating additional habitat and increasing connectivity for beneficial insects, such as bees and butterflies. In contrast, restoration and mitigation actions aim to return areas to a more natural state. Ecological restoration needs to be tailored to local social and ecological contexts, in the acknowledgement that a return to ecological integrity (in terms of structure, function, and composition) may only occur over longer time periods. Where companies work with other stakeholders to contribute to restoration, the benefits for biodiversity can be significant and include the restoration of habitats for species, added connectivity, and management of invasive species. The final category of actions, Transform, is covered at greater length in a separate section in this guidance, but it is widely acknowledged that these actions are necessary to halt and reverse biodiversity loss (IPBES, 2026).

Changing policy, economic and social systems, and values is fundamental to addressing the underlying long-term causes of biodiversity loss.

Consideration of biodiversity outcomes in action planning

Using the Step 4 guidance, companies can already begin to track complementary key performance indicators (KPIs) measuring outcomes for species and ecosystems resulting from actions taken to achieve science-based targets. In some cases, these indicators may be directly reflected in the target. Both the Avoid and Reduce Overexploitation and the Reduce Risk to Endangered, Threatened and Protected (ETP) Marine Wildlife Populations targets within the Ocean targets provide distinct mechanisms for translating impacts on fish and other marine species populations into corporate responsibility for pressure reduction.

Likewise, measures of ecosystem extent and condition, as well as other complementary biodiversity metrics, are embedded within V2 of the Land guidance. Both Land and Ocean targets also include landscape and seascape approaches that create opportunities to incorporate state-based indicators, guiding collective action by companies in specific areas to effectively address systemic biodiversity challenges.

The response options database helps companies improve target outcomes by noting co-benefits for biodiversity from specific actions aimed at addressing pressures, where this information is known. It should be noted that many biodiversity outcomes occur over a longer time frame and require action at a more systemic scale than the changes to company pressures that science-based targets are designed to address. For this reason, effective monitoring of biodiversity outcomes is likely to be a multi-stakeholder effort, requiring collaboration between companies, civil society, local communities, and government actors.

Companies may find the State of Nature Indicators and Metrics Framework and the Initial Measurement Guidance developed by the Nature Positive Initiative (NPI) helpful when designing their monitoring plans. The ongoing IPBES monitoring assessment may also provide helpful foundational guidance to companies and other stakeholders wishing to connect progress on science-based targets to the Kunming-Montreal Global Biodiversity Framework (KM-GBF) and other multilateral environmental agreements."





"Response options are potential actions a company could take to make progress toward achieving its targets across land, freshwater, and ocean."

Response options database

The response option database is a key component of the Step 4 resources. It helps companies identify efficient, impactful pathways to achieve their science-based targets for nature. It enables users to "zoom out" from individual targets and view action planning holistically, highlighting options that can address multiple pressures and generate benefits across land, freshwater, ocean, climate, and biodiversity. This integrated perspective and connection to core indicators of science-based targets makes the database a unique resource for companies.

What the database is for

The database is designed to help companies:

- identify potential actions quickly across the full Action Framework (AR3T);
- understand potential benefits across target scopes, e.g., for Land Area and Freshwater Quantity targets.

Information from the database can serve as a useful initial input for company action planning, allowing companies to:

- reduce or remove silos in company actions by integrating a holistic consideration of benefits and tradeoffs;
- prioritize actions that will be tailored to operating contexts and local environments using relevant business and environmental data;
- begin to develop a list of indicators and methodologies to integrate into target action planning and wider business strategy;
- identify the appropriate stakeholders to collaborate with on action planning and implementation.

It is not a prescriptive list of what companies must do. Instead, it provides a foundation for developing context-specific innovations and strategies.

THE DATABASE CAN BE USEFUL TO COMPANIES AT ALL STAGES OF THEIR TARGET-SETTING JOURNEY.

For companies at both earlier and later stages, the response options can help companies resolve silos present in many existing climate and nature strategies (including between different pressures and realms) and support business case development. For companies at a later stage, the response options database can be particularly helpful in evaluating existing sustainability actions (for example, those in place to implement existing climate targets), identifying co-benefits to maximize outcomes from science-based targets, or referencing case studies and data methodologies needed to create their action plans.

What the database contains

The database integrates and enhances SBTN's earlier response option lists, combining them into a single resource covering all current SBTN target areas (Ocean V1, Land V2, and Freshwater V2). It also draws on scientific literature, assessments, sectoral guidance, and expert input from SBTN's Freshwater, Land, Ocean, and Biodiversity Hubs. Key inputs include:

- SBTN's initial response options (first release), which provided the foundational content and structure for this latest iteration
- IPBES's "Nexus Assessment" on the interlinkages among biodiversity, water, food, and health[3]
- SUSTAIN's taxonomy of impact reduction strategies for agriculture, energy, and the built environment (agriculture and aquaculture resources)[4]
- USDA's *Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List for FY2025*[5]
- World Wide Fund for Nature's (WWF's) *Towards Nature Positive for the Ocean*[6]
- The Freshwater Challenge's Business Supporter Program[7]
- World Resources Institute's (WRI's) Volumetric Water Benefit Accounting[8] and Water Quality Benefit Accounting frameworks[9]
- *Sector Actions for Nature* (Business for Nature, the World Economic Forum (WEF), and World Economic Forum (WEF)[10]
- United Nations Environment Programme Finance Initiative's (UNEP FI) *Turning the Tide* sector guidance and criteria annex[11]

In this section, we also highlight key actions for SBTN's priority sectors (Agriculture & Seafood, Forest Products, Textiles), as identified in *Sector Actions for Nature* (see Box 2). These actions have been incorporated into the response options database, where not already represented by existing technical materials to support alignment.

A high-level view of the database contents is provided in Table 1. The actual database is provided as an Excel-based tool, available to download here.

3 https://www.ipbes.net/nexus-assessment
4 https://capitalscoalition.org/sustain-5/
5 https://www.nrcs.usda.gov/sites/default/files/2023-10/NRCS-CSAF-Mitigation-Activities-List.pdf
6 https://www.worldwildlife.org/publications/towards-nature-positive-for-the-ocean-pathways-for-corporate-contributions/
7 https://www.freshwaterchallenge.org/
8 https://www.wri.org/research/volumetric-water-benefit-accounting-vwba-method-implementing-and-valuing-water-stewardship
9 https://www.wri.org/research/water-quality-benefit-accounting
10 https://www.businessfornature.org/sector-actions
11 https://www.unepfi.org/publications/turning-the-tide/

Box 2: Key actions across sectors, prioritizing actions applicable to the sectors of Food, Agriculture, Forestry, and Textiles.

- Avoid, reduce, and remove greenhouse gas emissions across the entire value chain
- Avoid conversion and degradation of land, freshwater, and marine ecosystems
- Avoid and reduce the use of high-impact or uncertified materials
- Avoid and reduce the use of nutrients, pesticides, and other hazardous chemicals
- Avoid and reduce freshwater use through sustainable water management
- Reduce impacts for threatened, endangered, and sensitive species
- Implement regenerative practices to support soil health, ecosystem functioning, and species diversity
- Protect and restore natural areas, particularly locations significant for biodiversity and carbon storage
- Preserve and establish connectivity between natural areas
- Transform business models to reduce reliance on unsustainable practices and commodities
- Promote circularity and innovate products, practices, and technologies.
- Collaborate, educate, support, and advocate across your supply chain and industry actors
- Engage with other system actors in advocating for and achieving broader societal goals



Using the database

Users can identify and prioritize options with high impact potential and relevance to their scope using filterable data fields including:

- position in the AR3T framework;
- relevant sector(s) and value-chain stage(s) potential target benefits across SBTN targets and SBTi FLAG;
- route to impact (direct/indirect);
- potential biodiversity benefits.

While the response options are organized by realm, and subcategorized alphabetically to provide a quick entry route to the database, users should note that there are likely many response options relevant to their target scope within other realm categories. Searching according to target benefits relevant to a company's scope provides another route into the data that looks across all realms.

While most response options are necessarily at the site and landscape level, consistent with the science underlying the targets, the database also includes actions that provide potential direct or indirect target benefits through business and broader system transformation, such as circularity in production and manufacturing or policy advocacy.

The options have varying levels of specificity. For example, "Reduce impact through conservation-agriculture practices" is a response option, but specific conservation agriculture practices (e.g., no till farming) are associated with other options. The options are designed to accommodate planning at a range of levels and to reflect the many different combinations of practices and contexts among users. Where there is overlap, users should prioritize whichever options best suit their context.

The response options and data methodologies provided often represent global or sectoral averages and are intended to serve as a starting point only. All actions (whether sourced using the database or not) should be tailored to local and specific business contexts in order to effectively safeguard nature. This includes a careful assessment of potential target benefits, bearing in mind that benefits listed in the database incorporate assumptions. For example, for "Eliminate use and production of hazardous substances in manufacturing," potential positive benefits for ocean structural habitats are based on the assumption that environmental flows between the discharge source and the affected habitat, such as via a river mouth, are sufficient. Supporting resources, including case studies, methodologies, references, and notes on key challenges, are also provided where available (pending resourcing, these supporting resources may be further developed as companies' target adoption expands). These resources can also be extracted to support tailoring to company and target-setting context.

Indirect mitigation responses

Companies can and should use direct and indirect actions to help achieve science-based targets. A direct action is one with a clear causal relationship to the target indicator (e.g., the avoidance of conversion in a given location directly contributes to a no conversion goal) and indirect actions where there is an indirect but scientifically supported relationship to the target indicator (e.g., increased sourcing of seafood raised with fish-free feed can reduce overexploitation of wild-caught feed species). They should explore actions across the Action Framework (AR3T) in the response options database when developing their action plan. Companies should continue to place primary emphasis on avoidance and reduction measures, as these may be sufficient and more directly aligned with the Action Framework. Regeneration, restoration, and transformation activities may still contribute to target achievement, but they should not be used as a substitute for feasible avoidance and reduction actions.

Indirect actions are particularly important where planning using the response options database and other resources reveals that direct mitigation measures are insufficient to meet targets. For example, if a Water Quantity target requires a company to reduce water use by 90%, it can and should look first at options to reduce water abstraction and improve the efficiency of water use in its operations. However, the company can also look at complementary nature-based solutions in the basin—such as wetland restoration—which can indirectly impact the target parameters by improving freshwater availability, increasing natural water storage, and recharging underground aquifers. It can also have co-benefits across other pressures, such as filtration of pollutants in the basin water supply.

How SBTN plans to update and develop the database

The current release is the result of an effort to develop a more comprehensive response options database and provide sufficient cross-realm guidance and evidence to allow companies to begin implementing their targets. SBTN may explore options for developing this database over time, pending demand and resourcing. For example, we may explore incorporating an option for users and other experts to submit response options and case studies documenting successful implementations as well as other data, evidence, and resources.



Table 1: High-level map of the Database components.

Element	Response option description	Mitigation type	Sector	Position in value chain	Potential target benefits	Biodiversity relationships	Resources
Intended use:	Logical: Identify evidence-based response options	Safeguard nature by aligning plans with the SBTN Action Framework	Filter the most relevant options for the intended use	Filter the most relevant options for the intended use	Highlight where options have potential benefits across multiple target scopes Distinguish direct/indirect benefits, further supporting prioritization	Identify general trends in the relationship between the response option and biodiversity, supporting prioritization and due diligence	Identify: - Technical notes - Case studies - Methodologies - References
Example 1:	Reduce runoff and erosion by building green or gray infrastructure along waterways and in the watershed to avoid, reduce, or slow down overland flow and erosion	Reduce, Restore	All sectors	Upstream	General direction of relationships (direct/indirect) between response options and core target indicators across all target scopes	Positive (strong)	Details of key technical issues, case studies, methodologies, and references
Example 2:	Encourage sustainable water use in supply chains through procurement policies, training programs, incentives, financial support, technical support, etc.	Transform	All sectors	Upstream	General direction of relationships (direct/indirect) between response options and core target indicators across all target scopes	Positive	Details of key technical issues, case studies, methodologies, and references
Example 3:	Restore and establish riparian buffers (e.g., streamside management, buffer zones, floodplain habitats)	Restore	All sectors	Upstream	General direction of relationships (direct/indirect) between response options and core target indicators across all target scopes	Positive (strong)	Details of key technical issues, case studies, methodologies, and references



"Corporate action plans help companies achieve their science-based targets and develop company-wide strategies in alignment with emerging transition planning frameworks."

Corporate action plan template

The corporate action plan template or "the Template" helps companies translate their science-based targets for nature into effective action plans. The structure guides companies to link targets and response options at the site and company level (depending on the appropriate scale of action) with company-specific actions and data required to design, justify, and deliver action plans. These action plans support the company in achieving their science-based targets and the development of company-wide strategies and transition plans.

What the Template is for

The Template can be used to help companies:

- translate generic response options into company-specific actions, incorporating information on both business and nature contexts;
- document stakeholders, including affected stakeholders (such as Indigenous Peoples and local communities), and plans for effective engagement;
- map metrics and data needed for an effective oversight of the company's relationship with nature within the scope of the action plan;
- ensure that technical plans to meet targets feed into transition planning (and wider frameworks that may call for forward-looking sustainability information);
- guide reporting to stakeholders, both internally and externally (e.g., to boards, regulators, and civil society organizations);
- summarize and assess the plan as a whole, ensuring coherence and robustness.

The Template can be useful to companies at all stages of their target-setting journey.

It can help companies before targets have been set to:

- evaluate target feasibility prior to formal commitment;
- meet validation requirements of Step 3 relating to planning and engagement.

It can also help companies after targets have been set to:

- prioritize actions using relevant business and environmental data;
- tailor options to operating contexts and local environments;
- integrate action planning into wider business plans;
- track progress and report to stakeholders;
- align with broader transition planning frameworks.

What the Template contains

The Template is organized around four components.

- **Implementation**
  - scope (e.g., "parent" response option and "child" action)
  - nature impacts (e.g., impact, wider benefits, disbenefits)
  - implementation planning (e.g., risk assessment, feasibility, costs)
- **Engagement**
  - stakeholders (emphasizing "affected stakeholders"[12])
  - plans for engagement
  - supportive measures required
- **Metrics, data, and reporting**
  - metrics and rationales for selection
  - data management plans and gaps
  - reporting plans for internal and external stakeholders
- **Governance**
  - alignment with corporate strategy
  - required changes to business model
  - steps to socialize with leadership
  - plan for adapting corporate capacity and resourcing requirements (aggregate)

These components align with emerging transition planning frameworks, allowing companies to directly input their action plans into broader company transition planning. Table 2 explains the links between SBTN's action plan template and TNFD's guidance on nature in transition plans.[13] This also aligns with wider nature transition planning guidance, including WWF[14] guidance on integrating nature and climate in transition plans.

12 "Affected stakeholders" refers to all those who may be significantly affected by a company's operations, products, services, and supply chains. Business activities can be positive but may also potentially harm the agency, dignity, and human rights of individuals and communities. https://www3.weforum.org/docs/WEF_How_Corporate_Boards_Can_Engage_Affected_Stakeholders_to_Secure_Human_Rights_2022.pdf

13 https://tnfd.global/publication/guidance-on-nature-in-transition-plans/

14 https://www.wwf.org.uk/sites/default/files/2023-02/WWF_Nature_In_Transition_Plans_Feb23.pdf

Table 2: Links between the action plan template and the TNFD's guidance on nature in transition plans.

Template	Transition plan	How they work together
Implementation	Implementation strategy	Template translates response options into company-specific actions that deliver against science-based targets for nature. This can inform transition planning and disclosure relating to Implementation strategy.
Engagement	Engagement strategy	Template provides a register of stakeholders (including affected stakeholders) relevant to each of the actions to meet science-based targets for nature. This can inform transition planning and disclosure relating to Engagement strategy.
Metrics, data & reporting	Metrics & targets	Template provides details of systems/processes to track progress against the actions and science-based targets for nature. This can inform transition planning and disclosure relating to Metrics & targets.
Governance	Governance	Template provides oversight of plans to deliver against science-based targets for nature. This can inform transition planning and disclosure relating to Foundations, Implementation strategy, and Governance.

Using the Template

The Template guides users in collating useful data for the purposes described above. The action planning process will involve iteration across the components, which are mutually supportive. For example, "*Implementation*" supports the identification of impacts associated with actions, which helps to identify affected stakeholders ("*Engagement*") and measurement, reporting, and verification (MRV) approaches ("*Metrics, data, and reporting*") for safeguarding nature. "*Governance*" provides a holistic perspective that draws on all the preceding components.

Companies should aim to develop a coherent, robust action plan. The plan should clearly show how social and environmental factors have influenced the choice, design, and sequencing of actions—not simply list them. This should be supported by a holistic approach to evaluating and identifying risks to society and biodiversity (see above sections on safeguards and Appendix 2 for tools to support social safeguards).

SBTN does not require that companies eliminate all negative impacts before beginning Regenerate, Restore, or Transform actions. However, companies **should develop a clear, coherent action plan before implementation begins to ensure that the Action Framework is applied in aggregate.** This should ensure that:

- avoidance and reduction of negative impacts to the maximum extent possible is planned and resourced effectively as a priority;
- regeneration, restoration, and transformation actions are then incorporated in a way that complements and reinforces those efforts;
- any unintended negative impacts or trade-offs for nature and people, including local communities and Indigenous Peoples, are evaluated before any actions are taken, and avoided or mitigated during implementation.

Updating the action plan

A company's first action planning exercise should be seen as an initial assessment to inform the socialization and resourcing of their science-based targets. Companies should expect to adapt their action plan as needed in response to target monitoring and implementation plans. In many cases, the company may need to trial a set of actions to determine the most effective actions in the specific local context in which the company is working. If the global methodologies for measuring impacts suggested in the response options database are not consistent with local outcomes, companies should feel free to adapt either their monitoring strategies or actions accordingly.

The action plan can then become a learning document in which companies can consolidate actions and outcomes within an internal workbook and generate meaningful outputs for internal and external stakeholders (e.g., reporting frameworks, investors, and NGOs). The template can also provide the basis for company monitoring and evaluation systems for science-based targets by creating an approach for recording key metrics and management approaches. Companies are encouraged to document and, where feasible, quantify how planned actions contribute to changes in these indicators. This improves accountability, strengthens business cases, and supports external reporting expectations.

Collective action

Collective action is often necessary to achieve large-scale goals that are not fully achievable by companies' unilateral actions alone. For example, actions taken by a company to address risks to endangered species in their fishing operations may not be sufficient to address extinction risk if other companies fishing in the same location do not make similar changes to operational practices. For other targets, the changes made by a single company to their groundwater use may not result in overall increases to water availability at the basin level if other basin users are increasing their usage without a shared understanding of basin sustainability goals.

Collective action—including pre-competitive collaboration, supply-chain engagement, public–private partnerships, and landscape/seascape initiatives—is therefore required to achieve scaling and long-term durability of target outcomes. SBTN methodologies recommend—and, in places, explicitly require (e.g., Landscape/Seascape Engagement and Supplier Engagement targets)—collective action, ensuring that decision-making happens in the context of a robust multi-stakeholder process. Collective action is also a key part of successful target implementation, particularly when focusing on transformative actions—for example, cross-industry collaboration on policy advocacy. Suppliers and purchasing companies may formalize their intentions for collective supply-chain action by setting joint targets. This implies that the company and its supplier both participate in the validation process, both make claims on their target, and both are publicly accountable for making progress on it. This is encouraged because it supports target achievement under a more equitable responsibility-sharing framework and enables collective action in target implementation.

In some cases, collective action is more challenging to implement than independent company actions, but it also creates many benefits.

Challenges of collective action by companies include:

- allocation of responsibilities and benefits across multiple actors;
- time and resourcing of multi-stakeholder coordination, engagement, and decision-making to inform actions.

Companies that do leverage collective action when implementing their targets may benefit from:

- cost and resource savings on data collection and measurement from pre-competitive data sharing;
- efficient and equitable stakeholder consultations through coordination with other companies operating or sourcing from the same region;
- development of a shared strategy and goal for managing common resources;
- improved management outcomes through the incorporation of Indigenous and local knowledge.



"Together, the Step 4: Act guidance, response options database, and action plan template support company-specific planning at the place-based scale required for target implementation."

Integration with SBTN's wider methodology

The Step 4 resources are designed to complement the more prescriptive parts of SBTN methodology (Steps 1–3), including validation requirements. Below we highlight key interactions between Step 4 and these requirements.

- Steps 1–2 cover a materiality assessment and prioritization, providing companies with data on environmental pressures, state-of-nature indicators (including for biodiversity), and social and justice priorities relevant to a company's operations/value chain. Companies can use these data to help prioritize response options and plan actions, but local due diligence and tailored design of mitigation measures should be prioritized.

- Step 3 Land, Freshwater, and Ocean engagement targets contain requirements for a narrative strategy, a list of evaluated response options, and landscape/seascape initiative roadmaps. All realms require extensive stakeholder engagement. Step 4 resources can help companies meet these requirements, which should, in turn, inform action planning after targets have been set.

- Step 3 methodologies for all realms contain requirements regarding local stakeholder consultation or engagement that should continue to Step 4 target implementation. For example, all stakeholder engagement should follow SBTN's stakeholder engagement guidance,[15] and no actions should proceed without free, prior, and informed consent (FPIC).[16]

- Baseline data used to meet validation requirements and set targets in Step 3 can help directly inform ongoing data collection and monitoring during target implementation. In cases where companies use models and statistical approaches to estimate their target baseline in Step 3, they can use the methodologies in the response options database (as well as other modeling approaches) to estimate target outcomes.

- There are no current requirements for companies to measure, monitor, and/or verify the impact of individual actions to achieve targets. However, the general requirements associated with target validation do include annual disclosure of target progress, suggesting that companies will benefit from using Step 4 resources to plan for target monitoring and disclosure.

15 https://sciencebasedtargetsnetwork.org/wp-content/uploads/2024/10/Stakeholder-engagement-guidance-v1-0.pdf

16 https://www.ihrb.org/resources/what-is-free-prior-and-informed-consent-fpic

Appendices

Appendix 1: Case studies

Box 3: Ursus Nourishment—Introduction.

Ursus Nourishment is a global producer of plant-based food and beverages. As part of its sustainability strategy, the company set all Land V1 targets (No Conversion of Natural Ecosystems, Land Footprint Reduction, and Landscape Engagement) and both Freshwater V1 targets (Freshwater Quantity and Freshwater Quality). Ursus has also set an SBTi FLAG target alongside its SBTN targets, as per Land Step 3 guidance.

Ursus used the Step 4 resources both before and after setting targets.

Before setting targets:

- **To demonstrate the feasibility of meeting targets**
- **To help meet Step 3 Land requirements, including for details of response options and their evaluation**

After setting targets:

- **To plan and track implementation using a robust structure that aligns with emerging transition planning frameworks.**

Ursus—Getting started.

Given their wide range of target scopes, the Ursus Nourishment team wanted to use the ***Database*** *to identify response options with overlapping benefits. They used the filters in the Database to shortlist those options with potential target benefits across relevant target scopes (all V1 Land and Freshwater targets and SBTi FLAG).*

They identified several potential options with direct routes to impact—including those relating to soil improvement, water-efficient cropping, cropland management, and green infrastructure interventions—relevant to their northern India tree-nut supply chain and biodiversity decline around European processing sites in the Rhine Valley.

At this early stage, they used the Database as a starting point to gather evidence on their prioritized response options, including examples of successful corporate implementation in case studies (linked in the Database), and to help tailor these options into company-specific actions. They also reviewed the ***Template*** *and added some initial examples in "draft mode" to help structure their planning, highlighting a range of data and mechanisms to help safeguard nature, including SBTN's stakeholder engagement guidance and checklist.*

These "no regrets" options formed the basis of their provisional plans and helped them to give the board a clear picture of what adopting science-based targets would mean operationally and strategically. When they moved on to setting targets (Step 3), these options also helped them to develop a narrative strategy, a list of evaluated response options, and a landscape engagement roadmap for their Land targets.

Ursus—After targets have been set.

Once targets had been set, the Ursus Nourishment team developed much more detailed plans to guide implementation. They used the ***Template*** *to support this, building on the earlier work they had done to secure internal buy-in and set targets.*

They carefully tailored their actions with reference to local ecological conditions. For example, one of their actions—"Plant cover crops to reduce fertilizer use and erosion and improve soil health in the Rhine Valley"—was developed to be more specific, thus becoming "Use cover crops including oilseed radish, white mustard, and various grasses to improve water retention and soil fertility, and reduce erosion and the need for synthetic additions in the Rhine Valley."

Ursus also identified additional enabling actions for each of their actions. For instance, while agroforestry in India was technically feasible, effective implementation required financial incentivization for farmers and improvements to supply-chain traceability and verification systems.

They used the Template to develop a registry to collate all actions, plan implementation and engagement, track progress, and support effective governance, still drawing on the Database for resources, such as methodologies for MRV. Actions were organized using the AR3T framework, ensuring Avoid and Reduce measures formed the backbone of the plan. Regenerate, Restore, and Transform actions were added where they reinforced or enabled impact.
This process allowed Ursus to evaluate the plan as a coherent whole, i.e., one that limited pressures as far as possible given current technologies and markets. Ursus then layered restoration and regenerative actions to deliver positive outcomes for nature. The registry that they developed is now supporting them as they develop an integrated climate and nature transition plan.

Box 4: Silmaril Seafoods—Introduction.

In the Ocean Step 3 guidance, Silmaril Seafoods needed to set Avoid & Reduce Overexploitation targets for two of its operations in two fisheries—North Sea herring and Atlantic blue marlin. For these fisheries, it needed to follow pathways based on the stock health of the target (and bycatch) species. This called for action on the Reduce and Engage (and subsequently Cease to Source) pathway for Atlantic blue marlin, and the Cap and Engage pathway for North Sea herring. Across these pathways, Silmaril needed to identify a range of activities to help achieve its targets.

Silmaril used the Step 4 resources both before and after setting targets.

- **Before setting targets: To inform what response options and stakeholder engagement requirements might look like before target setting**
- **After target setting: To track progress in and align with wider transition planning frameworks.**

Silmaril Seafoods—Getting started.

While developing its Ocean targets, Silmaril Seafoods used the Step 4 resources to determine what meeting different overexploitation pathways would entail in practice. The sustainability team used the ***Database*** *to identify a long list of options for further investigation. They started by filtering response options by "Primary realm," "Mitigation type," and the relevant "Potential target benefits" columns (Avoid and Reduce Overexploitation, and Reduce Risk to ETP Species Populations), prioritizing Avoid and Reduce actions and those with direct benefits. Silmaril then tailored the most relevant response options to its own business context, such as "Reduce bycatch through behavioral or technical improvements," which it applied in the context of its Atlantic blue marlin operations as improvements or changes to its fishing gear, timings, and depth to minimize bycatch. Similarly, they adapted "Participate in area-based or producer organization (PO) agreements" to support collective action on reducing fishing pressures across its relevant operations. They used SBTN's stakeholder engagement guidance and checklist alongside the Ocean Step 3 guidance to help evaluate affected stakeholders associated with the proposed actions.*

At this stage, they used the ***Template*** *in "draft mode" to capture emerging ideas and assumptions, rather than document actual commitments. This allowed the team to record potential actions, affected stakeholders, and due diligence steps, while maintaining an open mind and not constraining future decisions. It also enabled them to get a good view of what the implementation requirements looked like at this stage, including the combined impact potential, feasibility, and costs of the actions. This helped them to communicate internally and successfully make the case for setting SBTN targets and, later, to satisfy Step 3 Ocean requirements.*

Silmaril Seafoods—After targets have been set.

*After setting its targets, Silmaril Seafoods used the **Template** to guide the development of a more robust plan. The team initially went back and forth a few times between the Database and the Template to ensure they had captured all the relevant options, then identified key associated steps to achieve the actions. For example, having identified the need to participate in area-based or PO agreements as a key response option for its Atlantic blue marlin fishing operations, the team determined that it needed to engage with the International Commission for the Conservation of Atlantic Tunas (ICCAT). While they had already gained internal support for setting a target, they now needed approval for specific investments. This more advanced level of planning enabled them to go further than they had prior to setting targets. They collated detailed data on impacts, costs, benefits, challenges, and stakeholders relevant to their local ecological, social, and business contexts. Examples of successful collective fishery initiatives and gear innovations highlighted in the Database helped the team to communicate feasibility, cost implications, and risk management considerations to commercial teams and senior leadership.*

*Silmaril also used the **Database** to identify methodologies relevant to fishery management and stock assessment, including indicators for biomass, fishing mortality, and bycatch risks. They knew that SBTN does not have requirements for MRV of response options in its methodologies but wanted to develop a robust approach to strengthen internal tracking and credibility with external stakeholders. The Database became a central registry, or "single source of truth," for their nature action planning and guided engagement with external stakeholders, including for voluntary and mandatory reporting obligations. By organizing implementation actions, engagement, metrics, and governance within a single structure, Silmaril was able to assess whether its action plan was internally coherent, aligned with AR3T in aggregate, and credible in the context of wider ocean governance frameworks, such as the Global Biodiversity Framework, IFC Performance Standards, and WWF's Towards Nature Positive for the Ocean report.*

Appendix 2: Tools to support the implementation of social safeguards

For additional guidance on stakeholder engagement and support on the use of these tools, please refer to SBTN's stakeholder engagement guidance.

Stakeholder mapping template

Robust stakeholder mapping enables companies to more effectively identify potentially highly impacted groups, clearly distinguish subgroups, and seek to understand the distinct ways in which to engage with these groups. Companies can complete a stakeholder mapping chart to prepare for engagement and capture information obtained in stakeholder consultations.

On the next page is an example of what a stakeholder mapping exercise in a priority location can look like. If using this template to support your own stakeholder mapping efforts, erase the second row. Please note that all biographical information presented in the example stakeholder map is fictional.



Appendix 2: Tools to support the implementation of social safeguards for an illustrative location, "Sun River."

Stakeholder name	Representative proxy/recognized expert	Risks and impacts relevant to science-based targets	Opportunities	Engagement priorities	Next steps
List the name of the stakeholder group	If not engaging the stakeholder group collectively, list an appropriate representative, proxy, or third-party expert	List any risks and impacts to the value chain and/or to stakeholders	List any opportunities to incorporate stakeholder insights into mitigating risks and impacts, creating co-benefits in projects, etc.	List key topics for what to focus on during stakeholder engagement consultations	List any internal steps that need to be taken in order to incorporate stakeholder insights and follow up with them appropriately in the future
Indigenous Tribe	Tribal Council elected officials	**Targets: Freshwater Quantity and Freshwater Quality** Indigenous Tribe uses the same freshwater sources for agriculture as the company agricultural operations and processing facility **Value chain impacts** Water pollution due to fertilizer and pesticide use in surrounding industrial agricultural operations; biodiversity loss in Indigenous territory driving decline of culturally relevant species **Human rights/cultural impacts** Potential disruption of traditional livelihoods **Legal/reputational risks** Need to uphold FPIC right to decide what activities can happen on their lands or using their resources	**Targets: Freshwater Quantity and Freshwater Quality** Potential to incorporate TEK into management practices and landscape initiative aims Co-benefits in hiring local, Tribal employees for watershed restoration to increase water availability and reduce concentration of pollutants Increased yield in Indigenous agricultural land with the implementation of response options by company and potential for ecotourism revenue in natural lands undergoing restoration	Develop plan to address risks and impacts on freshwater systems associated with current economic activities and target implementation to present at next Tribal Council meeting	Follow up on corporate funding to support Tribal-led water restoration efforts Connect with company's internal teams to decide on safeguards to implement in response to initial engagement with Tribal representatives

Social safeguards checklist

Establishing the correct social safeguards is crucial to successful target action planning and implementation and helps ensure that target setting and delivery do not undermine the rights of affected stakeholders. Companies can use the checklists below as they (a) prepare to set targets, and/or (b) develop their corporate action plan. These checklists will help companies to identify appropriate safeguards, guide conversations with affected stakeholders on safeguards, and design appropriate actions.

Note that the checklists are not meant to be comprehensive; they are intended to complement a company's existing due diligence standards and policies in developing safeguards. Please refer to SBTN's stakeholder engagement guidance[17] for more ideas, strategies, and examples on how to meaningfully engage with affected stakeholders.

FOR COMPANIES GETTING STARTED (BEFORE OR DURING TARGET SETTING IN STEP 3):

- Has an assessment been conducted on how potential nature loss and degradation from operations may impact the human rights of Indigenous Peoples, local communities, and other stakeholders?
- Are traditional land rights considered and respected in scoping activities?
- Has TEK held by Indigenous communities and local communities been incorporated into any environmental assessments?
- Is planned stakeholder engagement equitable, meaning the process focuses on stakeholders whose human rights are most likely to be negatively affected by the company's impacts?
- Have potentially affected stakeholders been informed about target implications, and do they understand how these implications are likely to affect their own interests and objectives?
- Have relevant local authorities and stakeholders been consulted regarding proposed targets?



17 https://sciencebasedtargetsnetwork.org/wp-content/uploads/2024/10/Stakeholder-engagement-guidance-v1-0.pdf

FOR COMPANIES DEVELOPING ACTION PLANS (COMPANIES WITH SCIENCE-BASED TARGETS):

- Have cultural heritage sites been identified and protected alongside affected communities?
- How do the actions and their implementation consider intended and unintended impacts on Indigenous Peoples, local communities, and affected stakeholders?
- Have relevant local authorities and stakeholders been consulted regarding courses of action?
- Have plans to consult local stakeholders in the final stage of safeguard development been drawn up?
- Were stakeholder concerns and/or requests recorded and incorporated into the safeguard creation process?
- Are there clear and identified pathways that promote co-benefits and benefit sharing?
- Have capacity-building activities to support local stewardship of nature been identified?
- Do solutions concerning Indigenous Peoples leverage the expertise and experience of Indigenous communities as stewards of biodiversity, with deference given to their sovereignty and land tenure?
- Has local ecological knowledge been considered and incorporated?
- Are there opportunities for local stakeholders to participate in data collection, analysis, and learnings related to targets?
- Have cultural protocols been identified and respected during engagement with Indigenous Peoples and local communities?
- Have relevant international, national, state, and jurisdictional laws related to land/freshwater/ocean/biodiversity actions been identified and followed?
- Are gender equity protections in place?
- Are workforce and value-chain workers' protections in place?
- Have accessible grievance and redress mechanisms and access to remedy been established and shared with affected stakeholders?
- Are there disclosure procedures in place?
- Are there transparent reporting mechanisms in place?
- Is there a plan to review safeguards on an ongoing basis to ensure safeguards are effectively addressing risks and concerns?
- Is there a continuous engagement strategy in place for consulting stakeholders on the outcomes of stakeholder consultations?
- Are adequate internal and external resources available to support ongoing stakeholder engagement?

Appendix 3: Wider resources

Nature action guidance

In addition to SBTN's initial response option resources, several other organizations have also developed implementation resources to inform corporate nature action. For example:

- SUSTAIN[18] has compiled an evidence-based inventory of nature "impact reduction strategies" for the energy, built environment, and agriculture sectors, linking pressures to a range of co-benefits and resources, including scientific evidence.
- *Sector Actions for Nature*[19] also provides a wide range of sector-specific actions.

However, with an expanded set of science-based target options across Land, Freshwater, and Ocean, there is a growing need for a similarly expanded set of response options. Crucially, these new response options include information on how response options provide benefits or "co-benefits" across multiple targets and realms—to support companies in developing robust action plans that create more efficient and effective paths to target achievement. In developing these new resources, we have also taken the opportunity to synthesize the best available resources on response options, referencing guidance from other frameworks and placing them in the context of science-based targets for nature. The Step 4 resources are designed to complement and integrate into this broader landscape of nature action guidance. Companies can use them alongside:

- high-level frameworks (e.g., TNFD,[20] WWF[21] materials on nature transition planning, IUCN's[22] definition of a nature-positive business);
- sectoral pathways and roadmaps (e.g., from WEF,[23] WBCSD[24]);
- strategy-development tools (e.g., the *Nature Strategy Handbook*[25]);
- natural-capital measurement, valuation, and accounting resources (e.g., the Align Project,[26] NBS Benefits Explorer,[27] and A-Track[28]);
- thematic guidance such as IUCN's *Global Standard for Nature-based Solutions*[29] and Sitra's *Circular Solutions for Nature*[30] handbook;
- emerging resources to support nature-positive business transformation, such as those outlining business model innovation and building the business case for sustainability[31,32]

18 https://capitalscoalition.org/project/sustain/
19 https://www.businessfornature.org/sector-actions
20 https://tnfd.global/publication/guidance-on-nature-in-transition-plans/
21 https://www.wwf.org.uk/our-reports/wwf-nature-transition-plans
22 https://portals.iucn.org/library/sites/library/files/documents/2023-023-En.pdf
23 https://www.weforum.org/publications/new-nature-economy-report-ii-the-future-of-nature-and-business/
24 https://www.wbcsd.org/actions/roadmaps-to-nature-positive/
25 https://nowfornature.org/read-the-handbook/
26 https://capitalscoalition.org/project/align/
27 https://www.nbsbenefitsexplorer.net/
28 https://capitalscoalition.org/project/atrack-project/
29 https://portals.iucn.org/library/sites/library/files/documents/2020-020-En.pdf
30 https://www.sitra.fi/wp-content/uploads/2024/04/sitra-circular-solutions-for-nature-handbook-for-businesses.pdf
31 https://www.wbcsd.org/resources/building-the-business-case-for-sustainability/
32 https://www.accountingforsustainability.org/content/dam/a4s/corporate/home/KnowledgeHub/Guide-pdf/A4S%20The%20Business%20Case%20for%20Nature.pdf.downloadasset.pdf

Safeguards

This document should not be considered as exhaustive—it is a starting point from which companies should build robust plans tailored to their contexts. There is an extensive variety of resources available for companies to inform and strengthen their safeguards for nature. Outlined below is a (non-exhaustive) list of resources from global organizations that companies may consult when getting started:

- Kunming–Montreal Global Biodiversity Framework[33]
- International Finance Corporation Performance Standard 6[34]
- UN Guiding Principles on Business and Human Rights[35]
- Convention on Biological Diversity (CBD) on benefit-sharing[36]
- Conservation International Environmental and Social Safeguard System[37]
- Nature Positive Initiative's State of Nature Metrics[38]
- World Bank standards for biodiversity[39]
- IPCC Report on Climate Change and Land[40]
- TNFD Guidance on Engagement with Indigenous Peoples, Local Communities and Affected Stakeholders[41]

33 https://www.cbd.int/gbf

34 https://www.ifc.org/en/insights-reports/2012/ifc-performance-standard-6

35 https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

36 https://www.cbd.int/abs/art10.shtml

37 https://d2iwpl8k086uu2.cloudfront.net/docs/default-source/s3-library/publication-pdfs/english-ci-safeguard-system-esmf-complete-rev-1-june119b65d2ca-1893-4e79-b584-d0c0eece89d8.pdf?sfvrsn=47e9585b_3

38 https://www.naturepositive.org/metrics/

39 https://thedocs.worldbank.org/en/doc/837721522762050108-0290022018/original/ESFFramework.pdf#page=81&zoom=80

40 https://www.ipcc.ch/srccl/

41 https://tnfd.global/publication/guidance-on-engagement-with-indigenous-peoples-local-communities-and-affected-stakeholders/



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