

TECHNICAL GUIDANCE

STEP

1

ASSESS



SCIENCE BASED
TARGETS NETWORK

Acknowledgments

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1. The scope of these guidelines is confined to SBTN Step 1: Assess of the five-step SBTN Framework. Guidance for Steps 2: Interpret & Prioritize, 3: Measure, Set, & Disclose: Freshwater and Land, and Step 4: Act will be released alongside the V2 methods. Guidance for Step 3: Measure, Set, & Disclose: Ocean (V1) remains up to date as of the date of this publication. This is to be followed later by collaborative Step 5 guidance to monitor target progress.
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.

Additional resources

YOU CAN FIND THESE IN THE [RESOURCES LIBRARY](#) ON OUR WEBSITE:

RESOURCES TO ACCOMPANY STEP 1

- [Tool Library](#)
- [Materiality Screening Tool](#)
- [High-Impact Commodity List](#)

OTHER METHODS

- [Step 2: Interpret & Prioritize](#)
- [Step 3: Measure, Set, & Disclose—Freshwater](#)
- [Step 3: Measure, Set, & Disclose—Land](#)
- [Step 3: Measure, Set, & Disclose—Ocean](#)
- [Step 4: Act](#)

GENERAL RESOURCES

- [Glossary](#)
- [SBTN FAQs](#)

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“Science-based targets for nature are measurable, actionable, and time-bound objectives, based on the best available science that allow corporate actors to align their impacts on nature with Earth’s limits and societal sustainability goals.”

General introduction

Overview of the SBTN methods

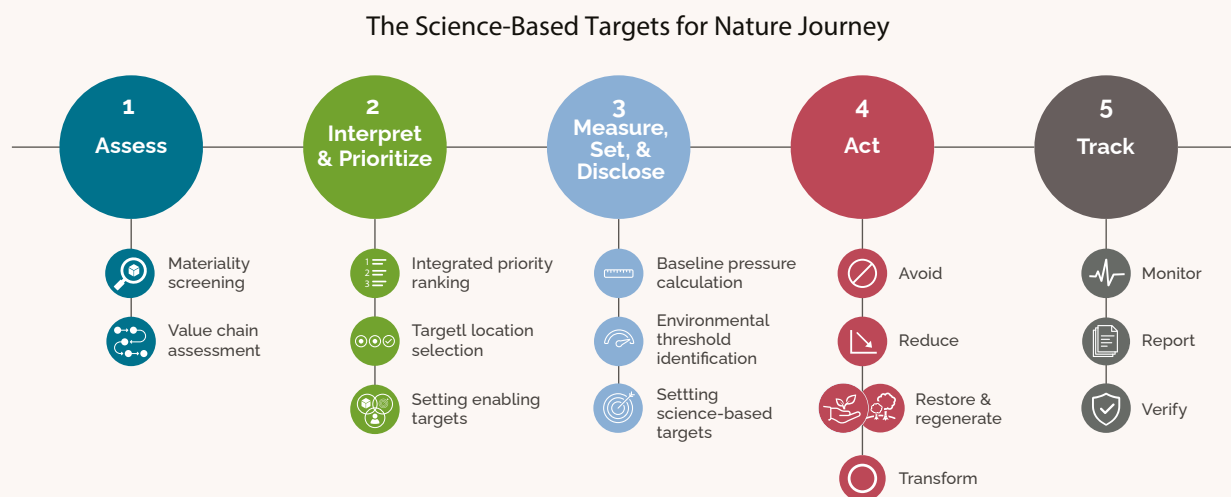
Science-based targets for nature are measurable, actionable, and time-bound objectives, based on the best available science which allow corporate actors to align their impacts on nature with Earth's limits and societal sustainability goals.

Setting science-based targets helps companies determine how much, when, and where to take action for nature. The process allows companies to gather data, integrate targets into their broader company strategies (for example, through nature transition plans), and implement changes to company operations, resulting in direct, positive contributions within their respective landscapes. Companies taking action following the SBTN methods may also experience benefits in terms of business resilience—through reduced supply chain risks and improved resource efficiency—generate data and insights to support reporting and disclosure commitments, and demonstrate credible contributions to the global shift toward a more resilient and nature-positive future.

The SBTN methods follow a five-step process:

1. **Step 1: Assess** helps companies identify which economic activities are material for target setting, map these activities to potential target-setting locations, and assess the pressures exerted on the environment and the state of nature in these locations.
2. **Step 2: Interpret & Prioritize** helps companies interpret the data gathered in Step 1 to identify priority locations for target setting based on potential impact reductions, biodiversity priorities, strategic factors, and risks and opportunities. For locations with insufficient traceability to use the Step 3 methods, Step 2 proposes Traceability Improvement and Supplier Engagement targets to enable science-based target setting in the future.
3. **Step 3: Measure, Set, & Disclose** provides realm-specific technical guidance to set targets for land, freshwater, and ocean. The current guidance includes methods to set up to 11 different targets, depending on which are relevant for each company. The guidance helps companies determine their baselines and identify models to calculate regionally-appropriate ambition levels for their targets.
4. **Step 4: Act** provides guidance for companies to identify best practices to achieve their targets, including societal and biodiversity safeguards, and resources, such as a response options database, to identify potential actions in order to make progress.
5. **Step 5: Track** is under development and will provide guidance for companies to understand how best to monitor, verify, and report on their progress over time.

Figure 1: The SBTN Framework and five-step target-setting process. The five steps guide companies through the process, from assessing their environmental impacts and dependencies to prioritization, target setting, action, and progress tracking.



The five steps are presented sequentially for convenience, but companies are expected to progress iteratively, especially as they gather new data on their activities, new science or data becomes available, or they make progress toward their targets.

As companies progress through the first three steps of the guidance, the methods progressively develop the focus of their work from a broad assessment of their activities and impacts toward target setting and actions. In Step 1a, companies start with their whole organizational boundary in scope, and screen all their direct operations activities and upstream procurement for materiality. In Step 1b, they may narrow the scope of their work to specific business units, environmental realms, and value chain segments through the accelerated pathways, before proceeding to assess environmental pressures and state of nature indicators only for the material activities within the selected scope of application. In Step 2, companies determine priority locations for target setting among those with sufficient spatial granularity to implement the Step 3 methods, while preparing optional, complementary enabling targets for locations with insufficient granularity. Finally, companies implement the Step 3 methods for the activities and locations carried forward from the preceding steps, and then have the option to progressively expand their targets over time.

In addition to the technical guidance covering the five-step process, SBTN offers two additional cross-cutting and foundational resources: SBTN's Biodiversity Position Paper (V2, 2026), which describes the inclusion of biodiversity in the methods, its role in assessment and prioritization, and how progress toward the targets delivers contributions to biodiversity; and SBTN's Stakeholder Engagement Guidance (V1, 2024), which provides guidance on engaging with Indigenous Peoples, local communities, workers, and affected stakeholders throughout the target-setting and implementation process.

The SBTN method development process

SBTN has collaborated with a number of organizations and initiatives to build on and align with existing frameworks, regulations, and standards. The technical documents published by SBTN have been developed through rigorous review and piloting involving SBTN's NGO and corporate partners, as well as a public consultation process. SBTN guidance is developed iteratively and constantly evolves in response to feedback from partners, stakeholders, and experts, collected through our multi-stakeholder review process. All science-based targets for nature methods have undergone the following stages of review: internal technical consultation; corporate engagement consultation; public consultation; and an external expert review panel.

These methods address this feedback while balancing rigor with end-user feasibility. SBTN outlined this review process and discussed the themes and related responses from the first release of the methods, in 2023, in a blog article entitled “How SBTN’s consultation process shapes science-based targets for nature.”

The current versions (V2) of the methods for Step 1: Assess and Step 2: Interpret & Prioritize build on the V1 methods and reflect the learnings of the SBTN validation pilot, conducted with 17 pilot companies from 2023–2024. They also respond to the experience of companies validating their implementation of the methods since the publication of the initial method versions, and to the availability of new tools and scientific developments.

Applicability of SBTN methods to business activities

The methods are available to all companies. However their applicability and eligibility for validation and public claims varies by sector and activity (as detailed in the technical guidance). The SBTN methods are designed for companies across a broad range of sectors, with the greatest applicability for those involved in primary production, manufacturing, construction, wholesale and retail, and related activities where impacts on nature are most direct and significant. Companies in administrative, management, and financial activities will find their applicability more limited.

The V2 methods address impacts across a company’s value chain, with most relevance for direct operations and upstream sourcing, and with initial coverage of downstream impacts for pesticide targets (although these are addressed via the direct operations of chemical trade and manufacturing).

Implementing the methods responsibly and ambitiously

Science-based targets for nature are most effective when embedded in a company’s broader commitments to sustainability and responsible business conduct. The targets can and should be integrated into corporate sustainability strategies and transition plans, inform reporting requirements and disclosure commitments, and help mitigate environmental risks to operations and sourcing.

Science-based targets for nature are inherently place-based, because environmental impacts and dependencies—such as those involving freshwater, oceans, land, and biodiversity—are tied to specific geographic locations. Effective action requires understanding and addressing these impacts within the particular basins, ecoregions, or landscapes/seascapes where a company consistently operates or sources from, ensuring that targets are locally relevant and meaningful. Targets should guide interventions on the ground and support collaboration with peers and other stakeholders toward achieving societal goals.

Science-based targets for nature complement climate targets and transition plans. Many of the actions needed to protect, restore, and sustainably manage nature contribute to climate change mitigation and adaptation. Integrated planning of nature and climate actions can help companies identify synergies, manage tradeoffs, and reduce risks across both domains. The targets can also support companies in preparing for regulatory and disclosure requirements related to sustainability, climate, and nature. By implementing the methods, companies generate relevant information for reporting, environmental due diligence, and the assessment and management of nature-related impacts, dependencies, risks and opportunities. For example, companies may find the outputs of Steps 1 and 2 useful for supporting reporting and due diligence under Corporate Sustainability Reporting Directive (CSRD), Corporate Sustainability Due Diligence Directive (CSDDD), and European Union Deforestation Regulation (EUDR) requirements; conducting Taskforce on Nature-related Financial Disclosures (TNFD) locate, evaluate, assess, and prepare (LEAP) assessments; and completing TNFD-aligned disclosures.

The methods are designed to be implemented sequentially and progressively, with an expanding scope over time. Step 1b introduces two different pathways for validation: the comprehensive and accelerated pathways. The comprehensive pathway requires a thorough assessment of the company's activities, but provides a more holistic perspective of impacts and increased opportunities for synergies and the management of tradeoffs. The accelerated pathways, on the other hand, offer practical entry points and can serve as learning experiences before expanding the scope. Where feasible, SBTN encourages companies to address multiple environmental pressures in the same locations, seeking co-benefits across Land, Freshwater, and Ocean targets. The claims guidance and the disclosures enabled by SBTN's Target Tracker are designed to reflect companies' ambitions relative to their global impacts, thereby providing public transparency and accountability.

Indigenous Peoples and stakeholders are critical partners for place-based action. It is essential to include Indigenous Peoples and engage with relevant local stakeholders impacted by company activities (e.g., community members, workers, and others), civil society, academics, and local government. Companies should use [SBTN's stakeholder engagement guidance](#) alongside the methods (Steps 1–5). The guidance found therein complements the technical guidance provided in this and other documents, and will enable companies to implement science-based targets for nature that are more equitable, just, and rights-based.

The validation requirements included in the methods establish the minimum methodological requirements that companies must meet for their targets to be considered aligned with SBTN guidance. They are designed to ensure that targets are informed by the best available science and appropriately reflect the needs of nature and ecosystems. SBTN encourages companies to submit their targets, demonstrating conformity with these requirements, for independent validation through SBTN's assigned validation body at the Accountability Accelerator. Validation strengthens the credibility, consistency, and comparability of science-based targets for nature. It provides the basis for companies to make public claims about the scientific basis of their targets and to transparently communicate their target coverage and progress.

SBTN encourages companies to always go above and beyond these requirements by expanding the scope of their activities, accelerating their pace of adoption and implementation, and increasing the ambition of their targets.

Environmental topic scope and the conceptual framework underpinning the methods

The SBTN methods utilize the **drivers, pressures, state, impact, and response (DPSIR) framework**. Beyond the SBTN context, DPSIR is a well-known framework that summarizes the relationships among variables influencing environmental trends and outcomes. It is often used by policymakers to assess problems and to design interventions, as well as by organizations developing methods for impact assessment and management.

The DPSIR framework examines the social and economic drivers (D) that exert pressures (P) on the environment, resulting in changes to the state (S) of nature. The related impacts (I) on humans and environments may cause or require a societal response (R). This is not a linear framework but one that may contain feedback throughout the system. In relation to the DPSIR variables, SBTN methods for Steps 1–3 focus primarily on pressures and the states of nature (referred to as SoN).

While generally conceived in negative terms, pressures can technically affect the state of nature in positive ways. Other frameworks may use closely related concepts and terminology. For example, the TNFD and Capitals Coalition use the term “impact drivers” for a concept that broadly corresponds to pressures in the SBTN methods and explicitly acknowledges their potential positive impacts.

The DPSIR framework helps organize the causal connections between these indicators through impact pathways, which are embedded in the SBTN methods. These pathways connect the indicators used in Step 1: Assess with the targets of Step 3: Measure, Set, & Disclose, and the positive impacts expected from Step 4: Act.

Pressures on nature occur through anthropogenic activities that change the state of the environment, including the addition or removal of substances or organisms, as well as direct changes to the structure, function, or composition of ecosystems. Meanwhile, SoN indicators describe the general conditions of nature in physical, chemical, or biological terms.

Viewed together, pressure and SoN indicators can be used to describe key elements in the dynamics of nature loss that are relevant to companies at a global level, as well as more locally in the landscapes where businesses operate. Pressures and SoN assessments are both needed, and they are interconnected. Pressures can often be viewed as “leading indicators” for potential changes in the SoN, such as changes in biodiversity and impacts that may arise from this, such as changes in ecosystem services or nature’s contributions to people ([Ota et al. 2021](#), and [Gosselin and Callois 2021](#)). Evaluating how different actors respond to these changes, and how they can work to control them through proactive target setting, is also at the core of the SBTN methods, and this theme is introduced in later steps (starting with Step 3: Measure, Set, & Disclose).

The SBTN methods use an integrated approach to understanding corporate environmental impacts and to developing a plan to manage them with science-based targets for nature. By taking a more holistic view of environmental pressures within the scope of the SBTN V2 methods, companies start their SBTN journey with a greater ability to take urgent action in line with global goals for nature and society. This approach increases a company’s potential to maximize co-benefits while minimizing tradeoffs for nature, biodiversity, and broader corporate sustainability efforts.

Overview of the SBTN targets

The SBTN target-setting methods currently cover a number of different pressures on nature across the land, freshwater, and ocean realms. These pressures correlate to the direct drivers of nature loss identified by the Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services (IPBES) in its [2019 Global Assessment Report on Biodiversity and Ecosystem Services](#).

Progress on the SBTN targets can represent corporate contributions to implementing the targets of the [Kunming–Montreal Global Biodiversity Framework](#). More information on the contribution of SBTN targets to the GBF targets can be found on [SBTN's website](#).

Table 1 below shows the SBTN target-setting methods available as of October 2026.

Table 1: SBTN target-setting methods and associated drivers of nature loss.

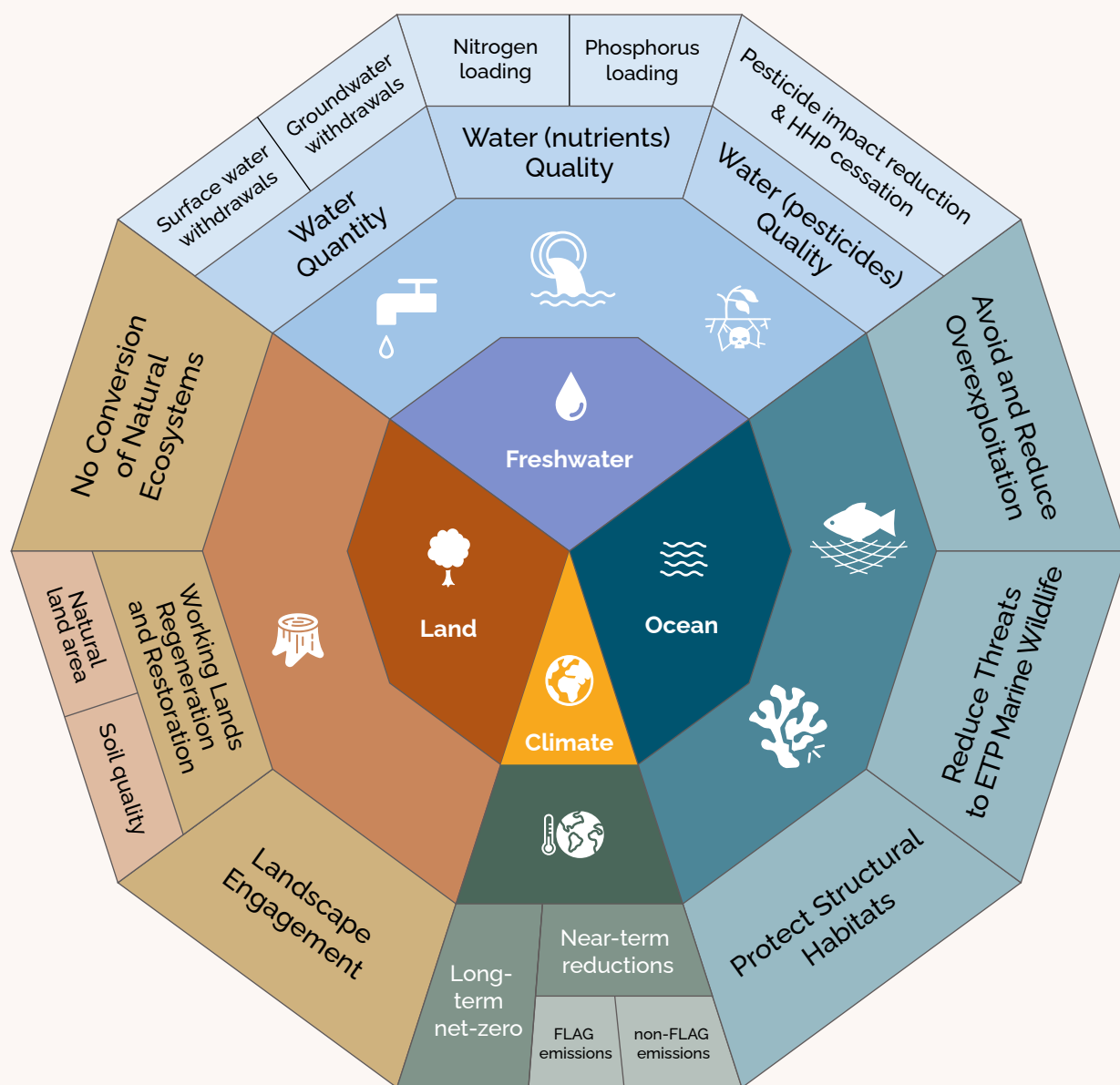
Realm	Target	IPBES Direct Drivers of Nature Loss most directly addressed through the targets
Land	No Conversion of Natural Ecosystems	Land/sea use change, Direct exploitation, Climate change
	Working Lands Regeneration and Restoration	Land/sea use change, Pollution
	Landscape Engagement	Flexible, depending on the target implementation
Freshwater	Freshwater Quantity	Direct exploitation
	Freshwater (Nutrients) Quality	Pollution
	Freshwater (Pesticides) Quality	Pollution
Ocean	Avoid and Reduce Overexploitation	Direct exploitation
	Protect Structural Habitats	Land/sea use change
	Reduce Threats to ETP Marine Wildlife	Flexible, depending on the target implementation

Figure 2: SBTN target-setting methods across environmental realms and pressures.

The SBTN methods address pressures on freshwater, land, and ocean, alongside climate change mitigation (via SBTi's methods) through specific targets and actions.



SBTN target-setting methods



Implementation approaches for science-based targets for nature

The SBTN Step 3 target-setting methods are based on different logics related to how companies change their activities over time.

1. Targets in the first category ask companies to implement company-wide changes, such that certain economic activities with intrinsically irreversible or highly impactful consequences for nature are permanently abandoned. This category includes 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.
2. Targets in the second category of targets 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 they continue their operations 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 (except its Land Footprint Reduction option, as noted below), the Freshwater Quantity target, the Freshwater (nutrient) Quality target, the Freshwater (pesticide impact reduction) Quality target, and the Avoid and Reduce Overexploitation (excluding the cease to source pathway noted above), Protect Structural Habitats, and Reduce Risks to ETP Marine Wildlife Populations ocean targets.
3. Targets in the third category ask companies to reduce their total (net) pressures at a company-wide level by improving practices and changing sourcing, but without geographic restrictions on where those changes occur. This category only includes the Land Footprint Reduction target.
4. Targets in the fourth category ask companies to make positive ecological contributions to a particular landscape relevant to their activities, complementary to changes to their economic activities. This category includes the Landscape Engagement land target and the Pesticide Landscape Engagement freshwater target.

APPLICABILITY OF LOCATION-SPECIFIC TARGETS FOR TRANSIENT ACTIVITIES

These target categories have different implications for companies that operate continuously or transiently in any given location.

5. Targets under the first, third, and fourth categories can be implemented by any company, because the targets ask companies to (category 1) cease existing activities or avoid future ones across their entire organizational boundary, (category 3) reduce their total net impacts regardless of their location, or (category 4) make positive contributions to a landscape. In all cases, the potential transience of activities does not affect target implementation.
6. Targets under the second category can only be meaningfully implemented for activities with long-term presence in an area. For example, companies operating continuously in a location can reduce their environmental pressures to achieve their targets. However, for companies who only have transient presence in a given location, the targets are not applicable, given that the pressures exerted by the company will cease the moment their operations move to a different area. While ecological conditions may improve, this does not represent an active sustainability contribution or improvement attributable to the company. Spatially transient activities should not be included in the scope of these targets to avoid setting meaningless targets and making misleading claims.

Companies in industries dominated by spatially transient project-based activities (e.g., building and infrastructure construction), where they do not own or retain ownership of the completed assets or where operational involvement ends upon project completion, may face significant challenges in setting location-specific targets under the second category for those activities. However, they may be able to set targets for a subset of their activities and sourcing at locations they consistently impact for at least five years.

Companies with continuously changing upstream sourcing locations would face similar challenges setting targets in the second category, but are encouraged to address the more stable portions of their procurement.

For project-based activities or where sourcing continuously changes, companies will still be able to use Steps 1 and 2 and could set enterprise-wide Land targets like No Conversion of Natural Lands or Land Footprint Reduction. They will likely be unable to set other location-specific targets for these activities, given low traceability and continuously shifting supply shed locations. However, they may do so for more stable portions of their operations or sourcing. SBTN encourages companies to identify, to the extent possible, portions of their sourcing and upstream activities that may be covered with science-based targets for nature and include them in their scope of assessment, carrying them over to the prioritization and target-setting steps.

General requirements for implementation

Companies wishing to make claims must submit their SBTN targets for validation, including documentation of their implementation of the SBTN methods (currently Steps 1, 2, and 3). Companies looking for guidance on how to implement and make progress on their targets should refer to SBTN's Step 4: Act guidance. When communicating about their science-based targets for nature, companies must follow the associated claims guidance.

The validation requirements included throughout the methods specify the information that companies must submit to demonstrate that they have followed the methods correctly and completely, and hence demonstrate that their resulting assessment coverage and targets meet SBTN's standards for scientific rigor and accountability.

The methods and validation requirements are organized into Tasks. The requirements and scope decisions made as part of any task apply to all subsequent tasks and steps, unless otherwise specified. For example, any activities, sites, procurement volumes, or pressure categories excluded from scope, in accordance

with the guidance, are not carried forward into subsequent tasks. Similarly, where companies use the accelerated pathways (e.g., for Tasks 6 and 7 of Step 1b) to focus on a narrower scope of activities, the subsequent requirements only apply to the selected scope.

The technical guidance also includes recommendations, which are intended to support companies in the process, provide practical advice to meet the requirements, or encourage them to go beyond the minimum validation requirements. These recommendations remain outside the validation process, and fulfilling them has no effect on validation outcomes.

Validation of a company's implementation of the SBTN methods remains current for five years. After this period, companies that wish to maintain their validation status and continue to make associated claims must update their implementation of the methods and resubmit their work for validation, following the SBTN guidance and validation requirements applicable at the time of resubmission. This may include reassessing their materiality and impacts, updating their prioritization, and reviewing and updating their targets, to reflect changes in their business activities and the best available science, tools, and data.

Targets are specific to the data that companies hold on each value chain segment and pressure. Therefore, companies must treat data for these segments and pressures separately as they progress through the five steps of the SBTN target-setting methods, except when the guidance documents call for a combined dataset.

Companies are not expected to set targets for the entirety of their operations simultaneously. This allows companies to focus their efforts and resources where they are most needed, thereby increasing the feasibility of the methods. However, to make overarching claims, companies are expected to eventually set targets for all material pressures and portions of their value chain.

A full-page background image of a mountain range. In the foreground, a large, bright white cloud dominates the upper half of the frame. Below it, rugged, rocky mountain peaks are visible, some with patches of snow or light-colored rock. In the lower right, a small town or village is nestled in a valley. The sky is a deep blue with scattered white clouds.

Step 1a: Materiality screening

Overview

Materiality screening (Step 1a) enables companies to quickly identify which environmental pressures are likely to be material for target setting in their activities. This screening step establishes the foundation for the value chain assessment (Step 1b) by determining which environmental pressures to carry forward for further analysis, followed later by prioritization and target setting.

In this first section of the SBTN methods, only environmental impact materiality is considered; in other words, activities that are **material for target setting** based on the potential severity, duration, and frequency of their impacts on society and nature. Materiality for target setting may not always coincide with materiality for other purposes, such as disclosure or reporting. Step 1a starts from this perspective because science-based targets themselves are focused on actions that reduce impacts. Later, in Step 1b and Step 2: Interpret & Prioritize, companies will include dependencies and considerations related to financial materiality, including financial risks and opportunities, to inform strategic decision-making on target setting and implementation.

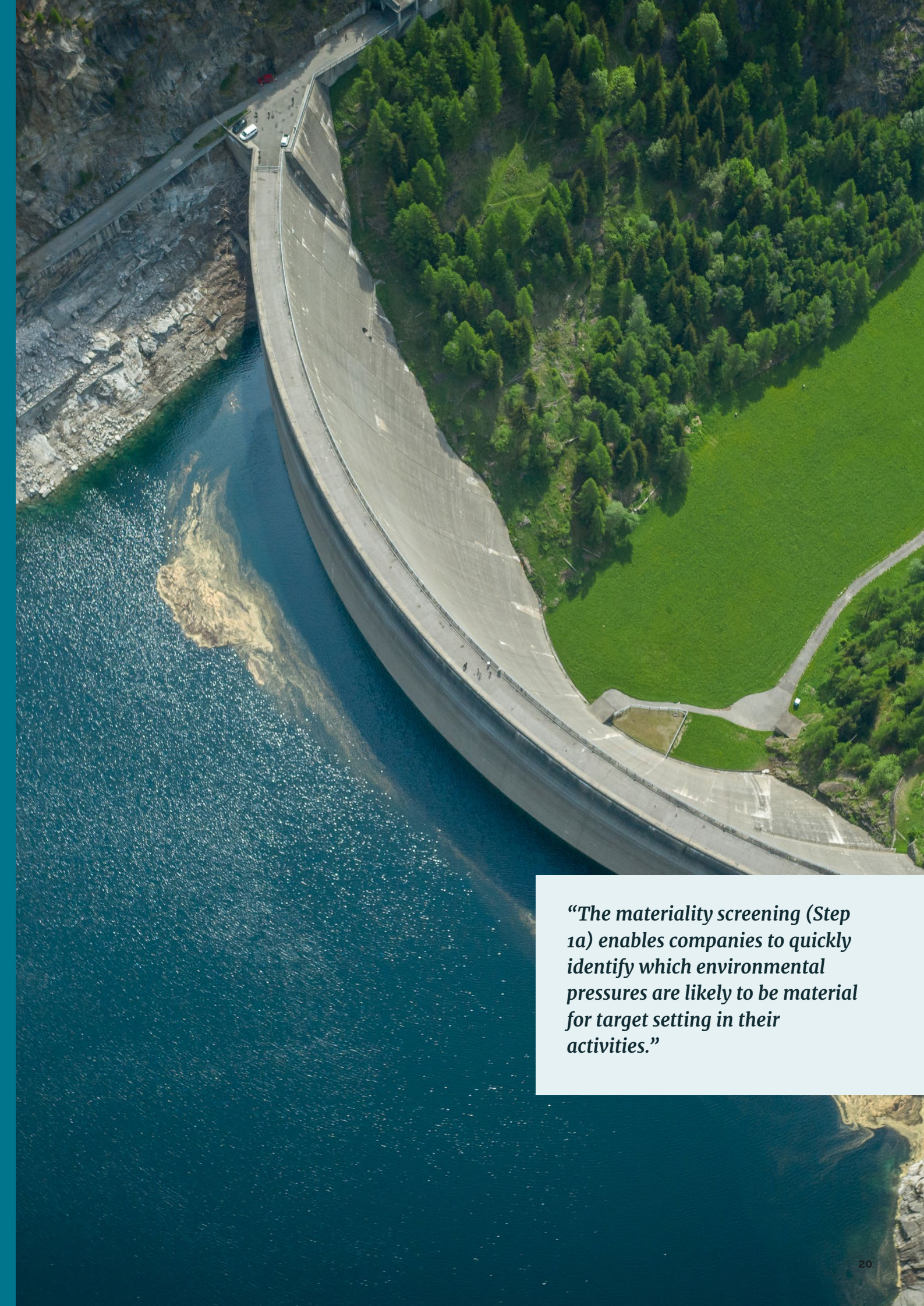
Step 1a starts by defining the organizational boundary. This process indicates all business entities and operations, including subsidiaries, affiliated companies, or joint projects, within the scope of responsibility of the parent company implementing the methods. Companies then identify the economic activities carried out

within this boundary and the procurement that enables these activities. Using a standardized classification of economic activities, companies apply automated tools to screen these activities for potentially material environmental pressures.

Step 1a incorporates a high-level screening based on the types of economic activities undertaken in the company's direct operations and upstream value chain. Companies are not required to determine the locations of these activities or the associated procurement volumes. In Step 1b, companies develop more detailed inventories of their sites and procurement, including volumes and locations, and use this to assess their environmental pressures. Step 1a therefore begins with a broad view of the company's activities and progressively focuses the assessment on the material activities, pressures, and locations relevant for prioritization and target setting in subsequent steps.

As an output of this step, companies will develop a list of environmental pressures that are likely to be material for each economic activity in their direct operations, and for each commodity and other products sourced as production inputs.

The high-level results of the materiality screening are fundamental to providing transparency into the company's activities and likely material pressures, and are disclosed as part of SBTN's [Target Tracker](#) to provide context for any claims companies make about their progress under the SBTN methods.



“The materiality screening (Step 1a) enables companies to quickly identify which environmental pressures are likely to be material for target setting in their activities.”

Task 1: Define the organizational boundary in scope for the methods

Confirm eligibility for implementation, validation, and claims

The SBTN methods may be implemented and submitted for validation by any legally recognized company, such as individual companies, parent or holding companies, subsidiaries, cooperatives, franchise operators, or other forms of corporate group or business organization. The **implementing company** is the entity that implements the methods and submits them for validation. The company is eligible to make claims on validated targets and is responsible for tracking progress under the SBTN methods.

Validation is an independent review process provided by the **Accountability Accelerator**. It corroborates that the methods have been implemented in alignment with all **validation requirements** laid out in this guidance. As of the publication of the V2 methods, validation is available for Step 1: Assess, Step 2: Interpret & Prioritize, and Step 3: Measure, Set, & Disclose. Additional information is available on the [Accountability Accelerator website](#).

Following validation, companies may **publicly disclose** their targets and progress through the [Target Tracker](#) shared by SBTN and the Accountability Accelerator. To provide the necessary context for the public to understand the significance of a target, SBTN requires that companies meet the **disclosure requirements** in this guidance, including specific data points related to their impact materiality, progress on their traceability, and coverage of their activities with targets. These disclosures enable companies to make public claims about their work, which must follow the requirements outlined in the Accountability Accelerator's **claims guidance**. While target disclosure is voluntary, SBTN encourages all companies to disclose their targets to build momentum for broader adoption and strengthen public accountability for progress.

Internal business units, departments, operational divisions, brands, and any other non-incorporated units are not eligible to act as

implementing companies, nor to independently validate work under the SBTN methods. Once they have completed Step 1a, eligible entities can choose to focus their value chain assessment (Step 1b) and subsequent steps of the methods (Step 2: Interpret & Prioritize and Step 3: Measure, Set, & Disclose) on specific, internal **business units**. That might include geographic and operational divisions, as well as other categories, and this is further defined in Step 1b.

Confirm applicability of the methods to your activities

The SBTN methods can be implemented by any company. However, the methods have been designed to address the impacts typically associated with primary production, industrial activities, and selected service sectors. SBTN encourages companies outside these sectors to implement the methods to cover any applicable activities in their operations and upstream sourcing.

Companies with activities in the following International Standard Industrial Classification of All Economic Activities (ISIC) sectors, based on ISIC Rev.4, will find the most applicability of the methods and are eligible for validation for any material activities:

- **Section A:** Agriculture, forestry, and fishing
- **Section B:** Mining and quarrying, except for companies in the fossil fuel sector, for which different eligibility rules apply (see below)
- **Section C:** Manufacturing
- **Section D:** Electricity, gas, steam, and air conditioning supply
- **Section E:** Water supply, sewerage, waste management, and remediation activities
- **Section F:** Construction
- **Section H:** Transportation and storage
- **Section J:** Information and communication
- **Section L:** Real estate activities

Companies in the following sectors will find more applicability of the methods for their upstream sourcing but are eligible for target validation on any material activity in their direct operations or upstream segments

- **Section G:** Wholesale and retail trade; repair of motor vehicles and motorcycles
- **Section I:** Accommodation and food service activities
- **Section R:** Arts, entertainment, and recreation
- **Section P:** Education
- **Section Q:** Human health and social work activities

Companies and organizations in the following sectors may find the methods to be of limited applicability for their own activities and may be ineligible for validation. However, these organizations can play a critical role enabling and supporting target setting in other sectors by endorsing science-based target setting and by providing supporting mechanisms, such as access to finance, data and tools, technology and innovations, technical expertise, or capacity building.

- **Section K:** Financial and insurance activities
- **Section M:** Professional, scientific, and technical activities
- **Section N:** Administrative and support service activities
- **Section O:** Public administration and defense; compulsory social security
- **Section S:** Other service activities
- **Section U:** Activities of extraterritorial organizations and bodies

Companies in the **fossil fuel sector** are ineligible for validation and claims on science-based targets for nature. This exclusion aligns with current SBTi policy. This exclusion applies to companies with any level of direct involvement in exploration, extraction, mining, and/or production of oil, natural gas, coal, or other fossil fuels, irrespective of percentage revenue generated by these activities. This includes, but is not limited to, integrated oil and gas companies, integrated gas companies, exploration and production pure players, refining and marketing pure players, oil products distributors, gas distributors and retailers, and traditional oil and gas service companies. Exceptions in adjacent industries are noted below.

Companies with activities in the fossil fuel sector that are eligible for validation of science-based targets for nature:

- Companies that derive less than 50% of revenue from a) sale, transmission, and distribution of fossil fuels, or b) providing equipment or services to fossil fuel companies.
- Companies with less than 5% revenue from fossil fuel assets (e.g., coal mine, lignite mine, etc.) for extraction activities with commercial purposes.
- Electric utilities that mine coal for their own power generation.
- Subsidiaries of fossil fuel companies may validate science-based targets for nature if the subsidiary itself is not considered a fossil fuel company.

Like SBTi, SBTN will evaluate the eligibility of fossil fuel company subsidiaries on a case-by-case basis. The subsidiary's operational model and relevance of its emissions to its parent company will be assessed. Subsidiaries that are established for the sole purpose of setting science-based targets are not eligible. For transparency, subsidiaries that set targets but whose parent companies are ineligible will be identified via a footnote in their target wording.

Determine the organizational boundary

The **organizational boundary** defines which business entities and operations fall within the ownership or control of the implementing company at the time of validation and are therefore covered in the materiality assessment and target-setting process.

In this context, **business entities** refers to legal entities such as the company implementing the methods itself, its subsidiaries, and affiliated or associated companies. **Business operations** refers to other activities, business arrangements, or investments, such as joint ventures and partnerships, fixed asset investments, or franchises. Company groups may have multiple business entities within their organizational boundary.

The concept of organizational boundaries is used in greenhouse gas (GHG) accounting and setting science-based targets for climate as a basis for emissions inventory. In the SBTN methods, it is used to create an inventory of economic activities (direct operations and upstream value chain) that can then serve as a basis for the materiality assessment.

The Greenhouse Gas Protocol (GHGP) outlines three approaches to defining the organizational boundary:

- **Operational control approach:** the organizational boundary includes all business entities and operations over which the company, or a company subsidiary, has the authority to introduce and implement operating policies.
- **Financial control approach:** the organizational boundary includes all business entities and operations over which the company has the ability to direct financial and operating policies with the intention of gaining economic benefits from these activities. For example, the company may have the right to majority benefits or it may retain the majority of financial risks and rewards related to the operation.
- **Equity share approach:** the organizational boundary includes the share (%) of the company's economic interest in, or legal ownership of, each business entity or operation.

The GHGP's [A Corporate Accounting and Reporting Standard, Revised Edition \(2004\)](#) provides additional guidance on the distinctions between the three approaches.

After choosing one of the approaches, companies define their organizational boundary as the list of business entities and operations that fall within their ownership or control at the time of validation submission. The choice of approach will dictate which subsidiaries and other activities are included within the organizational boundary and, hence, which are in scope for target setting. For example:

- A holding company or parent company of a company group may have significant financial and operational control over their subsidiaries, even if they don't run their day-to-day business. Where such control exists, those subsidiaries are included in the organizational boundary.
- On the other hand, a subsidiary implementing the SBTN methods will generally not have financial or operational control over its parent company or its sister companies in the company group, and would thus exclude these entities from its organizational boundary.

SBTN recommends that companies select the approach that allows the greatest coverage of their business operations, particularly for those operations most relevant for the application of the SBTN methods. The operational control approach is most commonly used as it closely aligns with the company's perceived responsibility and typically offers the most comprehensive coverage of company impacts. Where possible, SBTN recommends that companies use an approach consistent with prior reporting or target setting (such as SBTi targets); however, the focus should be on the approach most inclusive of relevant activities for coverage under science-based targets for nature.

GUIDANCE FOR COMPANIES FOLLOWING THE EQUITY SHARE APPROACH

Under the equity share approach, the percentage of economic interest or ownership over a business entity or operation does not affect the materiality screening in Step 1a. The screening is based on an economic activity typology and does not take into account the magnitude or intensity of the activities.

In Step 1b, where pressures are quantitatively assessed, these companies should allocate a share of the pressures from their activities equal to their percentage of economic interest or ownership over the business entity or operation performing the activity and only include this share in their scope for target setting.

SOURCES OF INFORMATION FOR DEFINING THE ORGANIZATIONAL BOUNDARY

When defining the organizational boundary, teams working on target setting can find company-specific information in annual and financial reports, as well as in internal reporting systems for procurement and environmental management. In cases where companies have joint financial or operational control over a business operation, the specific contractual arrangements can help determine whether the operation falls within the organizational boundary.

Many companies will have experience in defining an organizational boundary if they have used this for greenhouse gas (GHG) accounting and financial reporting, or if they have engaged in measuring, disclosing, or actively managing their environmental footprints through other initiatives such as [the Science Based Targets initiative \(SBTi\)](#); [Greenhouse Gas Protocol \(GHGP\)](#); the [Accountability Framework initiative \(AFi\)](#); [context-based water targets](#); the [CDP](#); the [Global Reporting Initiative \(GRI\)](#); or the [Taskforce on Nature-related Financial Disclosures \(TNFD\)](#).

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 1.1

Organizational boundary approach:

Indicate the approach selected to define their organizational boundary and, if relevant, the rationale of the choice (such as previous use of the boundary in climate target setting).

Req. 1.2

Organizational boundary disclosure:

Communicate the list of business entities and operations that fall within their organizational boundary and, for each entity and operation, indicate its legal or organizational form (e.g., subsidiary, joint venture, partnership, etc.), main geographic area of activity, and a brief narrative description of its economic activities. If using the equity share approach, indicate the equity share (%) held over each entity or operation.

Companies may be asked to provide internal organizational documentation demonstrating that their organizational boundary comprehensively covers their organization.

Recommendations

Rec. 1.1

Organizational boundary coverage:

Select the organizational boundary approach that provides the greatest coverage of business operations relevant to setting science-based targets for nature and, where possible, use an approach consistent with prior reporting or target setting.

Task 2: Identify the economic activities in your organizational boundary and procurement

Economic activities are the processes by which companies convert inputs, such as labor, capital, and materials, into products and services. Several systems standardize economic activity classifications. The SBTN methods use the [fourth revision of the International Standard Industrial Classification of All Economic Activities \(ISIC\) scheme](#).

Information on economic activities is commonly used to assess materiality, to manage impact data, and to convey it to users of those resources. In the SBTN methods, companies use a list of their economic activities as the basis for the materiality screening, i.e., the first part of Step 1: Assess.

Understand the value chain segments in the SBTN methods

A company's value chain is understood to consist of three different value chain segments:

- **The direct operations segment** is equivalent to the activities undertaken within the organizational boundary. In other words, direct operations cover the activities done by the business entities and operations owned or controlled by the company.
- **The upstream segment** includes all activities that produce goods or services that are procured by the company. The upstream segment is subdivided into four categories: production inputs, capital goods, operational support goods, and services.
- **The downstream segment** includes all activities related to the further processing and sale of products sold by the company, their use (or consumption), and their end-of-life management, as well as other activities that generate financial income for the company, such as investments, leases, and franchises.

Targets are set and monitored separately for direct operations and upstream value chain segments because companies will generally have different levels of influence and capacity to take action over these two segments. Companies typically have the highest capacity to collect data, set targets, and implement actions in their direct operations. In contrast, the upstream value chain segment often poses additional challenges regarding traceability, impact assessment, and stakeholder relations. Separating the targets by value chain segment allows companies to monitor and demonstrate progress independently, reflecting these different capacities and implementation pathways.

For the downstream segment, only the impacts associated with highly hazardous pesticides (HHPs) are currently covered by the methods. However, these impacts are addressed through direct operations targets focused on activities such as the production and trade of these pesticides, rather than through specific downstream targets. Beyond this specific case, the SBTN methods are currently not applicable to downstream value chain impacts, and companies should not include this segment in their materiality assessment.

Identify direct operations activities

Based on the organizational boundary, companies identify all ISIC group-level economic activities carried out by the business entities and operations within their organizational boundary at the time of submission. This list of activities will be used as the main reference to determine materiality in later tasks of the methods. Economic activities that occur irregularly but are expected to continue into the future must be included in the list, while those that have been discontinued should be excluded.

The activities should be classified according to the group-level categories found in the fourth revision of the ISIC. Companies that use other frameworks, such as the [Global Industry Classification Standard \(GICS\)](#), should first translate their activities to ISIC classifications.

Identify upstream procurement

For the upstream value chain segment, companies prepare an inventory of procurement that will be used in later tasks to determine material value chain stages for target setting.

To prepare this list, companies identify all **production inputs** procured by their business entities and operations over the last five years, which is called the **assessment period**. This five-year period helps balance out inter-year variability, especially for irregular procurement and where business activities may change over time.

Companies may also include, in whole or in part, any **capital goods** or **operational support goods** procured during the assessment period. Including these additional goods is recommended where production inputs do not represent a significant share of company procurement.

Any procurement that is exclusively linked to discontinued activities may be excluded from the assessment. The SBTN methods are not applicable to **services**; hence, procurement of services cannot be included in the upstream assessment.

PROCUREMENT CATEGORIES IN THE UPSTREAM SEGMENT

The SBTN methods distinguish four procurement categories in the upstream value chain segment:

1. **Production inputs** are goods that the company acquires to process, transform, or integrate into new products, that are consumed in the provision of services, or that are consumed during operations and ultimately become waste, emissions, or byproducts.

These inputs, composed of goods and materials essential for business operations, typically account for the majority of the company's upstream environmental impacts. Production inputs also tend to be tracked in detail by the company's procurement teams. This provides companies with visibility and leverage, which are success factors in setting and achieving targets.

A non-exhaustive list of production inputs relevant for different sectors includes:

- **In agriculture, forestry, and fishing:** seed, seedlings, animals for raising, feed, fertilizers, pesticides, and antibiotics.
- **In mining and extractives:** reagents, explosives, solvents, and leaching agents.
- **In processing and manufacturing:** raw or semi-processed materials, reagents and solvents, and packaging materials. For example, this can include textile fibers, dyes, or finished fabrics for the textile and apparel sectors, and base chemicals, derivatives, or pharmaceutical ingredients for the pharmaceutical and cosmetic industries.
- **In energy and utilities provision:** fuels and biomass feedstocks, lubricants and coatings, refrigerants, and water treatment chemicals.
- **In construction:** construction materials and additives, prefabricated components, coatings and sealants, explosives.
- **In wholesale and retail:** any goods that are acquired to be resold, as well as packaging and pallets consumed in operations.
- **In transportation and logistics:** fuels, lubricants, refrigerants, tires and vehicle spare parts, packaging and pallets.
- **In food and accommodation services:** ingredients, food, drinks, consumable guest products, and cleaning supplies.
- **In health services:** pharmaceuticals, disposable medical supplies, and sterilization and reagent chemicals.
- **In telecommunication services:** electronic components, cables and wiring, batteries, and equipment components in telecommunications.
- **In real estate services:** cleaning supplies, paints and coatings, landscaping and water treatment chemicals, maintenance consumables.
- **In waste management and remediation:** treatment chemicals, reagents, and absorbents.
- **For all sectors:** all packaging materials and energy carriers, e.g., fuel.

Utilities such as electricity and district heating are, in many cases, also used as production inputs, but these inputs, as well as any impacts associated with their provision, remain outside the scope of current SBTN methods.

2. **Capital goods** are durable goods intended for long-term use to produce, process, transform, manufacture, store, and distribute other goods, to provide services, or otherwise to enable internal operations and supporting activities. These can include industrial machinery and equipment, vehicles, infrastructure and buildings, and computing and telecommunications equipment.
3. **Operational support goods** include all goods that do not fall into categories 1 and 2 (above) and that are consumed by the company for purposes such as enabling operations, management, or maintenance. This may include office supplies and small equipment, furniture, food and drinks for employees, cleaning supplies, uniforms and safety equipment, and spare and replacement parts for the company's machinery.

Companies are only required to include production inputs in their procurement inventory. Those who want to go beyond this minimum coverage may also include capital goods and/or operational support goods. Companies should note that these goods are typically procured less frequently and in lower volumes, have lower traceability, and offer fewer opportunities to improve traceability or influence suppliers. This makes them more challenging to effectively address with target setting.

4. **Services** include all travel, transportation and distribution, outsourced management, food and accommodation, consulting and outsourced administration, and financial and insurance services, among others, procured by the company to facilitate its operations.

As noted above, services should, in all cases, remain out of the scope of the procurement inventory.

The exact boundary between what is considered a production input, capital, or operational support goods will depend on how each company uses the goods and for what types of activities, rather than on the specific type of goods. For example:

- A manufacturing company would consider printing paper to fall under the operational support goods category, while it would be considered a production input for a publishing company.
- Tires and vehicle parts may fall under the capital goods or operational support goods categories for a manufacturing company, while they should be considered production inputs for a transportation company.
- Goods such as catalysts, solvents, and filters should be treated as production inputs if they are regularly consumed or depleted and need to be replaced (i.e., the company procures them regularly within the period of five years), but they may be treated as capital goods if they have long lifespans resembling those of capital goods.
- Companies producing machinery, vehicles, electronics, infrastructure components, or other goods that may later function as capital goods for their clients should treat the raw materials, components, chemicals, and other manufacturing inputs as production inputs in the SBTN methods.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 2.1

Direct operations activity inventory:

Provide a full list of the group-level economic activities in their direct operations, using the ISIC Rev.4 classification system, at the time of submission.

Req. 2.2

Upstream procurement inventory:

Provide a full list of procurement, including all production inputs and, optionally, any capital goods and/or operational support goods, purchased by the business entities and operations in their organizational boundary during the assessment period (the five years previous to submission).

To make public claims about their SBTN progress, companies must disclose their list of economic activities under the direct operations segment in SBTN's Target Tracker. Companies are not required to disclose their list of production inputs, in order to protect confidentiality and business operations.

Recommendations

Rec. 2.1

Coverage of additional procurement categories:

Where production inputs do not represent a significant share of procurement, include relevant capital goods and/or operational support goods in the upstream procurement inventory.



Task 3: Identify high-impact commodities in your procurement

For the purposes of the SBTN methods, high-impact commodities (HICs) are commodities found to have a high impact on nature associated with their scale (global production volumes), production practices and methods, or risk of production in ecologically sensitive locations, as well as with the input requirements and waste products associated with their value chains.

Because HICs typically represent a disproportionate share of impacts on nature (relative to other commodities), these commodities are subject to increased transparency in the Target Tracker related to progress on their assessment and target setting. SBTN recommends that companies prioritize addressing these commodities when applying the SBTN methods.

The HICL includes all commodities listed in the [European Union's Deforestation Regulation \(EUDR\)](#). These commodities have global, well-established links to deforestation and forest degradation and are subject to higher transparency and due diligence requirements in certain jurisdictions.

The list also includes a group of **conversion-driving commodities (CDCs)**, which are considered only within the land use and land use change pressure category. Companies seeking to set and validate Land Targets must include, in their value chain assessment, all CDCs in addition to any HICs with materiality for land use and land use change (i.e., cattle, coal, and all those in the crops, minerals, and metals groups).

The composition of the list was informed by literature research from the SBTN technical community and expert advice from network members. The methodology and sources underpinning the research, as well as additional information about the commodities, are available on the **High-Impact Commodity List (HICL) (2026)**.

Compile list of High-Impact Commodities

Companies identify and list all **high-impact commodities (HICs)** present in their procurement. This list, subject to the exclusions described below, is used in Task 4 to determine which economic activities to include in the upstream materiality screening.

Companies must include any commodities found **directly** in their procurement, whether in raw or processed form, as well as any **embedded** soy and oil palm used as feed in any procured animal products.

The **High-Impact Commodity List (2026) resource** provides the list of commodities, together with supporting information on their classification and material pressure categories and value chain stages, as well as sources and references justifying the inclusion of the commodities in the list. An extract of the list is included below for convenience.

For consistency and simplicity, commodities are identified by the names used at their point of origin (primary production). However, the list effectively includes all refined and processed derivatives of the commodity. For example:

- **Cattle:** implies derivatives such as leather and dairy are automatically considered HICs;
- **Oil palm:** includes any derived base chemicals, such as those used in the food and cosmetics industries;
- **Timber:** includes derived commodities such as charcoal, cardboard, and paper.

Biofuels derived from HIC feedstocks are considered processed derivatives of the original commodity.

For the purposes of compiling their list of HICs for validation, companies are only required to include each primary HIC once, even if it's found in multiple forms in their procurement. For example, a company procuring cardboard, wood-derived viscose, and composite boards would only have to include wood in their list. Companies may also include the names of the derivatives in cases where this is helpful for data management purposes.

Table 2: High-Impact Commodity List.

	High-Impact Commodities			Additional conversion driving commodities	
	EUDR listed	Non-EUDR listed			
Crops	• Cocoa • Coffee • Oil palm • Soy	• Avocado • Banana • Cassava • Cotton • Maize • Potato • Pulses (dry beans and legumes, e.g., beans and cowpeas)	• Rapeseed (incl. canola) • Rice • Sunflower • Sugarcane • Tobacco • Tree nuts (e.g., almonds, walnuts, cashew)	• Buckwheat • Pineapple • Camelina • Radishes • Coconut • Rye • Grapes • Safflower	• Peanuts • Sorghum • Millet • Sugar beets • Mustard • Vetch • Onions • Wheat (incl. spelt and triticale)
Livestock	• Cattle	• Goats • Pigs • Poultry			
Forestry products	• Rubber • Wood				
Seafood		• Farmed seafood (freshwater) • Farmed seafood (marine) • Wild-capture seafood (freshwater) • Wild-capture seafood (marine)			
Minerals		• Limestone (cement) • Phosphate rock • Potash • Construction sand			
Metals		• Bauxite (aluminum) • Cobalt • Copper • Gold • Iron • Lead	• Lithium • Manganese • Nickel • Platinum • Silver • Tin • Zinc		
Fossil fuels and chemicals		• Coal • Crude oil (petroleum) • Natural gas			

Exclusions from the upstream assessment

Phosphate rock, potash, oil (petroleum), and natural gas are recognized as High-Impact Commodities due to their impacts on the environment. However, the current suite of SBTN methods has limited applicability to cover their upstream impacts. For this reason, companies are not required to keep these commodities within the scope of their (upstream) value chain assessment, and they do not need to include them, or their derivatives, in the upstream procurement inventory.

In the case of phosphate rock and potash, the impacts of fertilizer application are covered in the direct operations segment, but the current methods are not designed to cover upstream impacts such as water pollution associated with their extraction. Similar limitations apply to oil (petroleum) and natural gas, as the current methods are not designed to address the upstream impacts associated with their extraction and refinement. In addition, as companies in these sectors are currently ineligible for validation (see Task 1), these commodities and their derivatives should be excluded from the upstream value chain assessment.

Validation and claims requirements

To have this task validated, companies are required to:

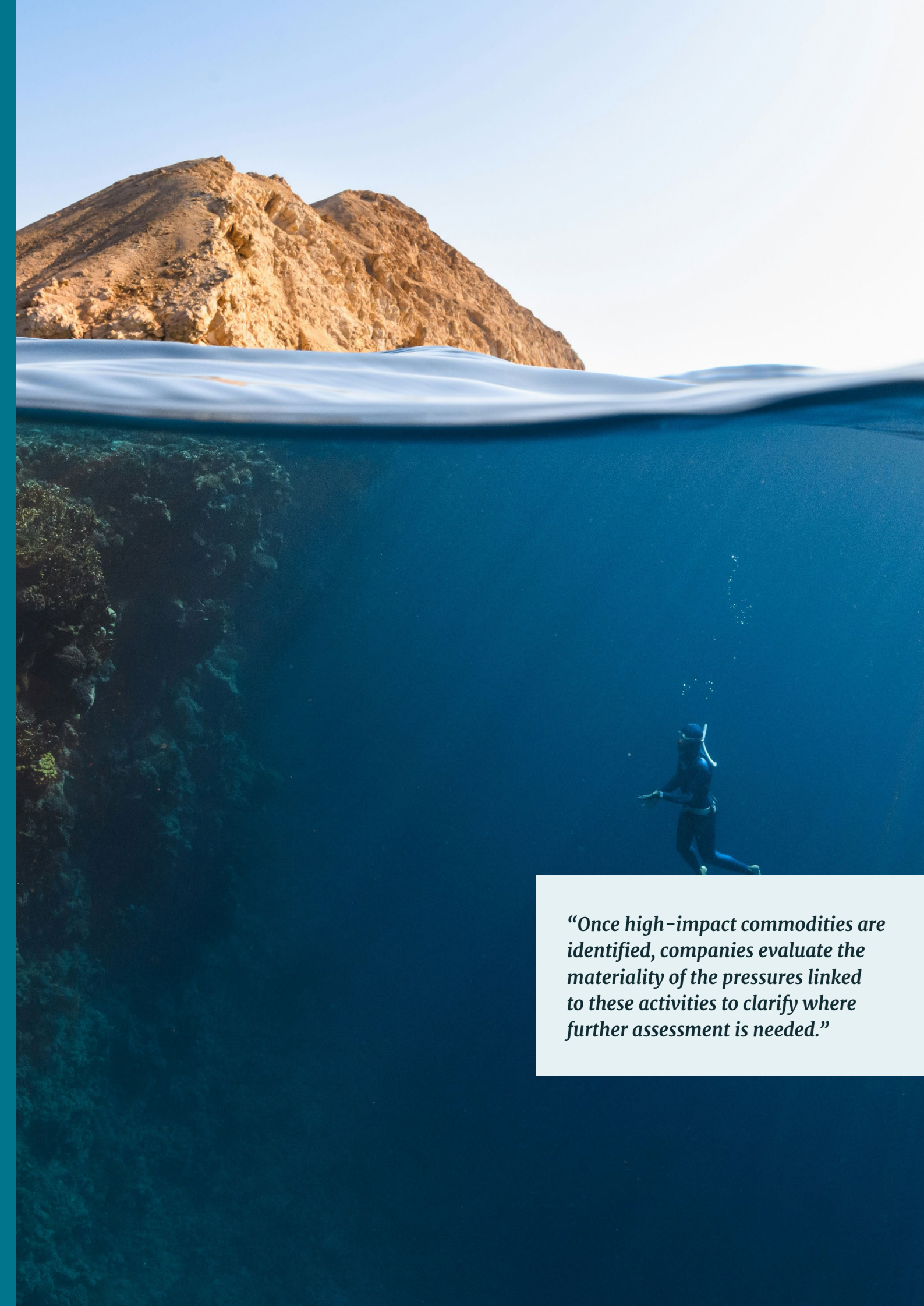
Req. 3.1

High-impact commodity identification:

Provide a full list of high-impact commodities found in their procurement. SBTN recommends that companies include the name of the products in which they are found (e.g., steel for iron, paper for timber, cheese for cattle), including any embedded soy and oil palm used in animal feed.

To make public claims on their SBTN progress, companies must disclose a compiled list of the HICs in their procurement. Companies are not required to disclose volumes or sourcing locations for these commodities at this stage in the methods.





“Once high-impact commodities are identified, companies evaluate the materiality of the pressures linked to these activities to clarify where further assessment is needed.”

Task 4: Screen for materiality

The concept of **materiality** is commonly used to describe the environmental, social, or financial significance of companies' activities. In the context of the SBTN methods, the concept refers exclusively to **materiality for target setting** and this may not always correspond with *materiality for other purposes, for example, reporting or disclosures under standards and frameworks such as ESRS, ISSB, TNFD, or GRI.*

Step 1a of the SBTN methods uses **impact materiality**, informed exclusively from an **external perspective** that describes potential impacts for society and nature resulting from the environmental pressures of a company's activities. This perspective complements the traditional **financial materiality** concept, defined from an **internal perspective**, which captures potential financial risks and opportunities for the company arising from its impacts and dependencies on nature. Step 1b and Step 2 of the methods introduce dependencies and considerations related to financial materiality, helping companies incorporate elements of a double materiality perspective into their prioritization.

Companies consult the **Materiality Screening Tool (MST) V2** or **Exploring Natural Capital Opportunities, Risks, and Exposure (ENCORE, 2024)** to identify which **pressure categories** may be driving material impacts on nature from their economic activities and thus which targets are relevant to set for their activities. Pressure categories represent a high-level classification of environmental pressures derived from ENCORE. They are used in Step 1: Assess and Step 2: Interpret & Prioritize to organize data collection and processing. Each pressure category may be associated with multiple pressure indicators and connected to different targets through the methods for Step 3: Measure, Set, & Disclose.

Screening for materiality

Companies screen all direct operations activities and those linked to their procurement for materiality, using either SBTN's Materiality Screening Tool (V2) or ENCORE (2024), without combining the tools. The MST (V2) is available for online use through shinyapps.io and can be downloaded from [SBTN's resource library](#). The ENCORE (2024) database is [available online](#).

The screening focuses on the following environmental pressure categories:

- Area of land use
- Area of freshwater use
- Area of seabed use
- Volume of water use
- Biotic resource extraction
- Emissions of GHG
- Emissions of nutrient pollutants to water and soil
- Emissions of toxic pollutants to water and soil

Other pressures categories, such as invasive alien species, may also be relevant to companies but are not included in the SBTN pressure assessment. In both tools companies consult an economic activity of interest in the database and obtain a list of which of the pressure categories mentioned above are material for the activity. The materiality results will dictate which targets are applicable for each direct operations activity and upstream procurement. In the case of upstream assessments, procurement items may be simple or complex products (e.g., containing one or more ingredients or components), and target setting may focus on one or more economic activities of the associated value chains.

The guidance below indicates the cases in which primary production activities are required or recommended for the screening, as these are often associated with the highest impacts on nature, and the cases in which secondary production activities are recommended.

For the direct operations screening, companies consult the ISIC Rev.4 standardized economic activities that most closely describe their direct operations, as defined in Task 2.

For the upstream screening, companies take different approaches:

- **For any procurement items consisting of single HICs or their derivatives**, SBTN requires that companies consult the primary production economic activities linked to the primary commodities (i.e., activities in ISIC Sections A and B). Companies may, optionally, also consult secondary production activities linked to later stages of processing, transformation, and manufacturing of the intermediate and finished products they source (i.e., activities in ISIC Section C). Consulting a secondary production stage allows companies to assess pressures (in Step 1b) and set targets for (in Step 3) multiple value chain stages associated with the same commodities.
- **For procurement items that contain multiple ingredients or components, including at least one HIC**, companies must disaggregate the relevant ingredients or components as different line items and screen the economic activities associated with each item separately:
 - Any HIC ingredient or component amounting to 10% or more by mass (i.e., tonnage) of the product composition must be recorded as a separate line;
 - Any non-HIC ingredient or component amounting to 10% or more by mass (i.e., tonnage) of the product composition may be optionally recorded as a separate line if the company is interested in pursuing assessment and target setting for it;
 - All remaining content should be grouped as a single line item under the name “other ingredients.”

For each HIC ingredient or component, companies must follow the guidance in the point above, consulting the materiality for the primary production activities and, optionally, for the secondary production activities. For each non-HIC ingredient or component recorded as a separate line, SBTN recommends that companies follow the guidance for HICs (focusing on primary production and keeping secondary production as optional), where applicable.

For items labeled as “other ingredients,” companies have to, by necessity, only consult the secondary production economic activity associated with the manufacturing of the final product, as they will not be able to disaggregate and trace the components to earlier stages.

- **For procurement items that do not contain HIC content**, companies are strongly recommended to consult the materiality of secondary production activities associated with the product when the product is a complex product with multiple ingredients; for procurement of goods consisting of single commodities (raw or processed) companies may consult primary or secondary production activities

The direct operations and upstream materiality results are recorded as different lists using the validation templates. Where the same economic activity represents multiple business entities, operations, or sites in direct operations or multiple procurement items or their components in the upstream segment, the activity only needs to be screened once per value chain segment.

The MST (V2) is based on the ENCORE database (2024), which was developed through a qualitative literature review on the typical environmental impacts across sectors, focusing on the expected severity, frequency, and timing of these impacts. In the MST, materiality is defined when an activity’s pressure score is above the median value for all activities in that pressure category in ENCORE.

Interpreting the materiality screening results

The MST results will indicate which pressure categories and target categories are relevant for each activity. Values of 1 (one) are interpreted as “likely to be material for target setting.” Values of 0 (zero) indicate “no materiality expected.” ND (or empty) values indicate “lack of information,” which indicates a current lack of evidence for that ISIC group and its associated impacts on nature.

Companies using ENCORE (2024) will instead define an activity as “likely to be material for target setting” when it has a materiality rating of “medium,” “high,” or “very high” in the tool. “Low” and “very low” values indicate “no materiality expected” and empty values indicate “lack of information” (as with the MST).

Materiality results do not automatically imply that a target will be required; instead, these pressure categories are further assessed in Steps 1b and 2, and only later in the process is it determined whether they will be prioritized for target setting.

Pressure categories with “no materiality expected” or “lack of information” results (i.e., zero or ND values in the MST) are not required to be carried forward into the remaining SBTN methods, helping focus resources on material issues.

As a note on the language used in the technical guidance, subsequent tasks in the methods often refer to “material activities,” “material locations,” or “material pressures” for language simplicity. These terms refer to any activity (and its associated locations) with “likely to be material” results for specific pressures. In later tasks within the methods, companies have the opportunity to modify these results with appropriate justification.

Table 3, on the next page, shows how materiality across different pressure categories and types of economic activities translates into pressure indicators for assessment in Step 1b and which targets are applicable in Step 3: Measure, Set, & Disclose.



Table 3: Material pressures, pressure indicators, and applicable SBTN targets.

Materiality	Activity type	Pressure indicators to assess in Step 1b	Applicable Step 3 targets for these pressures
Area of land use	Agriculture and forestry	Conversion of natural ecosystems	No Conversion of Natural Ecosystems + Landscape Engagement
		Agricultural land footprint or Non-natural land cover	Working Land Regeneration and Restoration (land area) + Landscape Engagement
		One soil quality indicator through LEAF factors (SOC, Erosion, or Acidification)	Working Land Regeneration and Restoration (land quality) + Landscape Engagement
	Mining and quarrying	Conversion of natural ecosystems	No Conversion of Natural Ecosystems (MICE pathway) + Landscape Engagement
		Non-natural land cover	Working Land Regeneration and Restoration (land area) + Landscape Engagement
	All other activities	Non-natural land cover	Working Land Regeneration and Restoration (land area) + Landscape Engagement
Area of freshwater use	Land-based aquaculture	Conversion of natural ecosystems	No Conversion of Natural Ecosystems + Landscape Engagement
Volume of water use	All activities	Water withdrawals	Freshwater Quantity targets
Emissions of nutrient pollutants to water and soil	All activities	Nutrient discharge to freshwater systems or Gray water footprint	Freshwater Quality targets (nutrients)
Emissions of toxic pollutants into water and soil	Agriculture and forestry; Landscape services activities	Pesticide ecotoxicity impact	Freshwater Quality targets (pesticide impact reduction + HHP cessation) + (Pesticide) Landscape Engagement
	Chemical manufacturing, chemicals retail and wholesale	Highly hazardous pesticide production and/or trade volumes	Freshwater Quality targets (HHP cessation)
Other biotic resource extraction	Marine (wild-capture) fishing	Total marine biomass extraction, by species and stock	Avoid and Reduce Overexploitation
			Protect Structural Habitats
			Reduce Risks to ETP Marine Wildlife Populations
Area of seabed use	Marine aquaculture	Total surface area of aquaculture (has) or Total volume of marine biomass production	Protect Structural Habitats
			Reduce Risks to ETP Marine Wildlife Populations
Emissions of GHG	All activities	SBTN recommends that companies with material activities for GHG emissions set climate targets following SBTi's guidance	

In addition to the targets mentioned above, the Step 3 Land methods include a **Landscape Engagement Target**. SBTN requires that companies setting Land targets or Freshwater Quality targets on pesticides set a Landscape Engagement target in a relevant landscape to validate their targets. We recommend that companies with no material activities for land set a Landscape Engagement target to engage in restoration and regeneration activities.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req.

4.1 Materiality screening results:

Provide the full MST or ENCORE screening results, covering all pressure categories for all economic activities screened, with separate records for direct operations activities and upstream procurement. All screening must use either the MST or ENCORE, without combining the results from the tools. For upstream procurement, results must identify the procurement item to which each screened economic activity relates and, where applicable, the individual ingredient or commodity and the value chain stage (primary or secondary) represented by the activity. In the case of procurement items consisting of multiple ingredients, separate results are required following the ingredient disaggregation guidance above.

To make public claims on their SBTN progress, companies must disclose the material pressures for their direct operations and upstream activities, disaggregated by economic activity, in SBTN's Target Tracker. In the case of upstream procurement, only the list of activities must be disclosed, not the name of the specific procurement items or their ingredients.

Recommendations

Rec. 4.1

Additional upstream activity screening:

For upstream procurement, screen the value chain stages most relevant to environmental impacts, prioritizing primary production for commodities, and, where useful for target setting, also screening secondary production activities.

Rec. 4.2

Non-HIC content screening:

For upstream procurement without HIC content, screen relevant production activities where doing so would enable assessment and target setting for potentially material upstream impacts.



Task 5: Manually adjust the screening results

The scores in the MST and ENCORE reflect a general understanding of typical impacts and represent global sectoral averages, so the screening results may not necessarily reflect a company's specific practices and operations.

Where companies have conducted previous materiality assessments, or otherwise suspect material impacts for a specific activity and pressure, despite negative or missing results (i.e., "ND"), they may treat the results as "likely to be material" and provide a narrative explanation for their choice, although no data or hard evidence is expected at this point in the methods. This allows companies to retain these activities and pressure categories in scope for the Step 1b assessment and potentially for target setting, for example, where sector-average tools do not reflect locally managed water systems or infrastructure-buffered hydrology, and potentially lead to target setting.

Companies may also consider that results indicating materiality may not be representative of their activities, given particular practices or production processes that they or their suppliers implement. In Step 1a, it's not possible to manually adjust an automated result into "not material." Instead, the Step 1b and Step 2 methods provide opportunities to exclude or deprioritize such activities from target setting based on the company assessment, and location-specific pressure and state of nature (SoN) data.

For activities with inconclusive results (i.e., "ND"), companies are recommended, but not required, to include evidence in their validation submission that justifies the exclusion of these activities and pressure categories from their assessment.

The screening results from Task 4, incorporating any adjustments made under Task 5, constitute the **final materiality screening results for Step 1a** and determine which activities and pressure categories are carried forward into Step 1b.

Validation and claims requirements

To have this task validated, companies are required to:

Req. 5.1

Adjustments to materiality screening results:

Identify any screening results from Task 4 that they have adjusted from "no materiality expected" or "lack of information" to "likely to be material for target setting," indicating the relevant pressure category and providing an explanation for the adjustments.

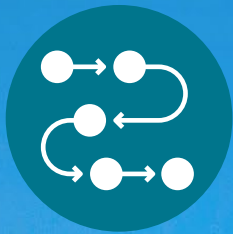
To make public claims on their SBTN progress, companies must disclose the **final materiality screening results** in SBTN's Target Tracker.

Recommendations

Rec. 5.1

Evidence for excluding inconclusive screening results:

For "lack of information" results that will not be carried forward as likely material for target setting, provide available evidence supporting their exclusion from further assessment.



Step 1b: Value chain assessment



Overview

After completing Step 1a, companies will have a high-level overview of material pressures for their activities, for all pressure categories, based on sector-average data. Step 1b builds on the list of activities and procurement drawn up in Step 1a to develop a location-specific inventory of sites and sourcing locations. Companies gather spatial information and assess the environmental pressures of their activities, SoN indicators for their locations, and their dependencies on ecosystem services. The data gathered in Step 1b feeds into the Step 2 prioritization process, to help determine which locations to prioritize for target coverage. In some instances, the data gathered in Step 1b can be used directly as the pressure baseline used in Step 3: Measure, Set, & Disclose.

The logic of the value chain assessment

The value chain assessment covers the direct operations and upstream value chain segments. In the **direct operations assessment**, companies identify activity sites within their organizational boundary and assess the environmental pressures arising from their activities. Each location becomes a potential target-setting location. Companies are expected to assess 100% of the sites and activities within their organizational boundary at the time of the validation submission.

Throughout the **upstream assessment**, companies translate their procurement into potential target-setting locations along their value chains. The upstream assessment is based on the procurement data for the assessment period defined in Step 1a, which corresponds to the five years previous to the validation submission. SBTN requires that companies assess at least 90% of all high-impact commodities and 90% of their non-HIC procurement at the time of the validation submission. This assessment may be completed without specific location information and using secondary data. Starting with their procurement of production inputs and potentially capital goods and operational support goods, companies identify the relevant commodities, determine one or more value chain stages to focus on, and trace the value chains to the locations where those activities occur.

Hence, a single procurement item may result in multiple upstream activities and locations for target setting along its value chain. For example, this may happen when it contains multiple ingredients (derived from different commodities) that the company decides to assess at multiple stages of the value chain, such as production, intermediate processing, and final production. Alternatively, it might occur where a company sources the same commodity from multiple locations. Given that the upstream assessment is based on procurement, which may vary from year to year, companies use a five-year assessment period to provide an average that smooths inter-year procurement variability.

Companies are not required to identify every value chain stage, for every component, of every procurement item. Instead, SBTN recommends that they to focus on High Impact Commodities and the value chain stages typically associated with the highest environmental impacts, as well as any other value chain activities they consider strategically or ecologically relevant for target setting. The tasks in Step 1b explain how to identify the relevant commodities, value chain stages, sourcing locations, and environmental pressures that form the basis for target setting.

Interoperability and alignment with other sustainability frameworks

After completing Step 1b, companies will have:

- An inventory of in-scope sites and upstream sourcing locations;
- An assessment of environmental impacts and dependencies at each location; and
- An assessment of several SoN indicators for each potential target-setting location indicating the places with the greatest opportunities for improvement and highest biodiversity importance.

Many companies will find their previous sustainability efforts to be helpful in completing this process. This includes traceability, environmental footprinting, life cycle assessments, water stewardship, no-deforestation commitments, participation in jurisdictional and landscape initiatives, and certification systems, among others. Relative to many sustainability frameworks, SBTN's emphasis on location-specific data provides a more granular and context-specific understanding of environmental impacts. Beyond the target-setting methods, this can help inform sustainability decisions at the company level, identify environmental risks and priority actions, prepare for regulatory compliance and reporting requirements, and complete voluntary sustainability disclosures.

The accelerated and comprehensive pathways

To further improve the feasibility of the methods, SBTN provides two **alternative pathways** to complete and validate Step 1b. Through the accelerated pathways, companies can focus on specific parts of their activities and impacts to progress more quickly to setting targets. Alternatively, companies may wish to pursue the **comprehensive pathway**, which provides a holistic overview of companies' impacts on nature across their value chains.

SBTN recommends that companies follow a **comprehensive pathway** when implementing the methods. This involves keeping the entire organizational boundary, all associated procurement, and all pressure categories in scope during their Step 1b value chain assessment. This keeps all activities in scope for the Step 2 prioritization and helps companies set the most relevant targets. This pathway offers greater opportunities to identify synergies and tradeoffs in prioritization and to define more effective and efficient approaches for implementing targets using the resources for Step 4: Act. This pathway is best suited to companies that have made more progress in data collection and where a holistic view of impacts on nature can be used, for example, to support voluntary or regulatory disclosures or corporate sustainability goals.

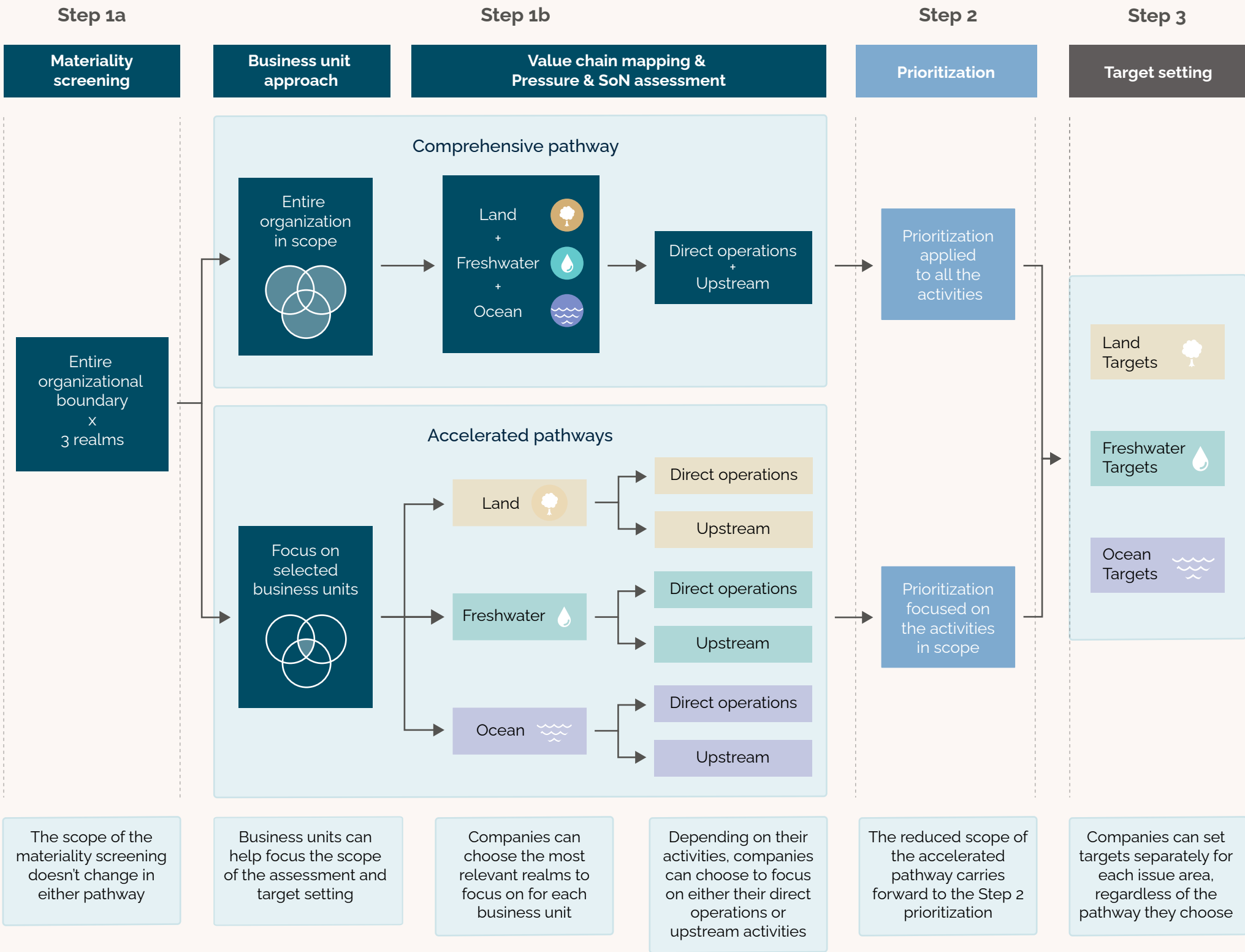
Alternatively, companies may follow an **accelerated pathway**, whereby they complete their value chain assessment, and subsequent steps of the methods, for specific business units, realms (i.e., land, freshwater, ocean), and/or value chain segments (i.e., direct operations or upstream). Tasks 7, 8, and 9 guide companies through selecting from among these focus areas. The accelerated pathways enable faster progression to target setting. They are particularly useful for large, complex companies with operations and sourcing across many geographic regions, as well as for sectors where impacts are concentrated in particular value chain segments (e.g., where most impacts occur in direct operations or upstream). However, they may be applied by companies of any type or sector, especially as an easier approach to get started with target setting.

The choice of pathway, therefore, determines the **scope of the assessment**—i.e., which business units (hence, which sites and locations), value chain segments (direct operations or upstream), and pressures to focus on (land, freshwater, or ocean). Any activities and environmental pressures outside the scope of the assessment will not be considered in Step 2: Interpret & Prioritize, and will be ineligible for Step 3: Measure, Set, & Disclose.

Both pathways are equally eligible for validation; however, for transparency, any public claims made upon completion of the value chain assessment, prioritization, and target setting should specify whether an *accelerated* or *comprehensive* pathway was followed. Companies should choose the pathway that best balances feasibility and comprehensiveness based on their own needs and capacities at the time of submission. SBTN encourages companies that start with an accelerated pathway to more comprehensively address their nature impacts over time.

Figure 3: Comprehensive and accelerated pathways.
In Step 1b, companies using the comprehensive pathway assess their full organizational boundary across all material realms and value chain segments, while the companies following an accelerated pathway focus on selected business units, realms, and value chain segments.

The Comprehensive & Accelerated Pathways of Step 1b in v1.2



Task 6: Select business units for target setting

A **business unit** is a subset of a company's organizational boundary with sufficient operational autonomy to set and act on science-based targets, delineated by legal, geographic, and/or operational divisions within the company.

Companies may select one or more business units to carry forward to the value chain assessment and eventually to target setting. Each of these units may set targets across different realms and value chain segments, providing flexibility to act on the issues most relevant to each unit.

In this context, company claims and the Target Tracker will reflect the focused scope of their assessment and target boundaries.

By focusing on specific business units—particularly those with internal capacity and significant impact—large, complex companies can rapidly move toward target setting. This approach allows them to gain experience and build the internal business case needed to expand target setting to additional units.

Identify business units

Companies that wish to follow this approach to target setting must first identify valid units within their organization. A business unit must meet the following **fundamental criteria to be valid for use** in the SBTN methods:

1. It must have sufficient **operational autonomy** and **support from organizational leadership** to effectively implement methods, set targets, and act on them.
2. Its scope of activities must be **clearly delimited within the company and easily understood** by the general public, such that any third-party organization can hold the company accountable for any claims made regarding the SBTN targets.
3. It must correspond to an existing, internal operational or external reporting structure within the company. In other words, the business unit must not be defined solely for the application of the SBTN methods. It should be delineated in accordance with the **options** listed below, which can be applied separately or in any combination.

POSSIBLE OPTIONS FOR DEFINING BUSINESS UNITS

- **Legal entities within conglomerates or corporate groups:** When the **implementing company** is a conglomerate or corporate group, individual business entities within the group, such as subsidiaries, can be considered business units. SBTN recommends that corporate groups follow this option to define their business units.
- **Geographic areas (direct operations):** For companies operating in multiple countries, these countries or multinational regions can serve as business units. The geographic scope refers to the company's organizational boundary (i.e., its direct operations) and not to its sourcing locations.

- **Standardized activity-based groupings (relevant to the company's scope of activities):**

For vertically integrated companies, especially those with activities in both primary and secondary production, business units may be defined to separate primary activities from secondary ones. For example, a company may place its own farms in one business unit and its food manufacturing sites in another one. Similarly, a company may place its quarries in one business unit and its processing and construction materials production sites in another. For conglomerates, corporate groups, or single companies with multiple types of activities, business units may be defined according to market, industry, or customer type. This delineation may follow an industry classification, such as ISIC. For example, a retailer may separate food and beverages, durable goods (e.g., apparel and electronics), and logistics into three distinct business units.

- **Product lines or brands:** For companies operating in specific sectors but with a large span and diversity of products or offerings, product categories may be used to define business units. The categorization must be aligned with ISIC group-level divisions or other standardized economic classification systems (e.g., NAICS or GICS). For example, a food and beverages manufacturer may define the following business units: specialty foods; non-alcoholic beverages; pet foods; and other foods. Brands may be considered equivalent to a product line so long as companies can demonstrate that the brand is a functional operational and/or a reporting unit within the company (e.g., with separate supply chains and financial statements), as well as an externally recognizable market identity.

Select relevant business units

Science-based target setting can support progress toward and fulfillment of sustainability commitments. Target setting increases rigor and may support companies in preparing other requirements, reduce risks to operational continuity, and improve supply chain resilience. To select which business unit(s) to focus on, SBTN recommends that companies consider aspects such as value chain traceability, leadership buy-in, existing sustainability commitments, disclosure requirements, and existing expenditures and operational risks.

Initially focusing on business units can help companies to consolidate learnings and develop expertise for target setting. Once the feasibility of the process has been assessed, SBTN recommends that companies expand their coverage of business units with science-based targets.

Extract materiality results for activities within the business unit(s)

Once one or more valid and relevant business unit(s) have been selected, companies refer to the results of the materiality screening (Tasks 4 and 5) and extract the subset of economic activities carried out under direct operations within the selected business unit(s). These economic activities, and the associated material pressure categories, are kept in scope for further application within the methods. Economic activities that fall outside the selected business unit(s) are excluded.

Companies repeat the process for their upstream screening results. They identify the procurement items associated with the selected business unit(s) and extract the materiality results (from Tasks 4 and 5) for the associated economic activities. Where procurement items were disaggregated into individual ingredients or components in Task 4, companies retain those disaggregated lines and their associated screening results. This procurement (with its linked material pressure categories) remains in scope for further work in the methods, while all other procurement is excluded.

Validation and claims requirements

To have this task validated, SBTN requires that companies wishing to focus on business units proceed as follows:

Req. 6.1

Business units identification:

Indicate the business unit(s) selected to carry forward in the assessment and prepare an organizational chart or map that illustrates the position of the selected unit(s) in the context of the organizational boundary and present data to illustrate the size of the unit(s) relative to the overall business (e.g., % revenue).

Req. 6.2

Business unit selection rationale:

Present a rationale and internal documentation proving the selected units meet the definition criteria outlined in the methods, such as:

- Letters from the organizational leadership demonstrating support for target setting
- Organizational charts or reports showing the existence of the unit outside the target-setting process
- Internal reporting from financial statements or management reporting structures
- Reports on voluntary disclosures (e.g., TNFD, GRI, ISSB) or regulatory disclosures (e.g., EU CSRD, 10-K report required by the US Securities and Exchange Commission)

Req. 6.3

Business unit screening results:

Provide an extract of the direct operations and upstream materiality screening results from Step 1a, applicable to the selected business unit(s); if multiple units are selected, the results of each unit must be shown separately.

To make claims about their progress, companies should disclose the following in SBTN's Target Tracker: the name and relative size, measured in % of revenue, of the selected business unit(s) within the organization and their materiality screening results.

Recommendations

Rec. 6.1

Additional considerations for business unit selection:

Select business units based on their suitability for effective target setting and implementation, considering factors such as impact, traceability, leadership support, sustainability commitments, risks, and existing disclosure requirements.

Rec. 6.2

Expansion of business unit coverage:

Expand target-setting coverage to additional business units over time.

Task 7: Select realms and value chain segments

In the context of the SBTN methods, **environmental realms** include **land, freshwater, and ocean**. These realms refer to distinct Earth systems within which related environmental pressures act on nature and biodiversity. The freshwater realm is divided into two parts (quantity and quality), reflecting the data requirements and implementation of the Freshwater targets.

Select environmental realms of focus

Following the (optional) selection of one or more business units to focus on, companies determine whether to address all environmental realms (following the comprehensive pathway logic) or to use the accelerated pathway to further reduce their scope by selecting only one or more environmental realms.

Each business unit may focus on different realms or combinations. Where feasible, SBTN encourages companies to keep all realms in the scope of their assessment to increase their target coverage. In the case of freshwater, companies may choose to focus on either the quantity or the quality component, or both, depending on the targets they intend to set.

The selected realm determines which targets are applicable and which pressure indicators may need to be assessed in the subsequent tasks of Step 1b. Companies must ensure, in their selection of realms, that the chosen business unit(s) engage in economic activities that are material to the pressures in the selected realm. Otherwise, target setting will not be possible.

Companies may choose the realm(s) they consider most relevant for each unit, taking into account the results of the materiality screening, though justification is not necessary for validation. Companies that have chosen multiple business units may select different realms, or combinations of realms, for each.



Table 4: Realm selection, applicable targets, and pressure indicators.

Realm selection	Applicable targets	Pressure indicators for assessment in Step 1b*
Land realm	Full suite of Land targets: • No Conversion of Natural Ecosystems • Working Land Regeneration and Restoration • Land Area component • Land Quality component • Landscape Engagement	• Conversion of natural ecosystems • Agricultural land footprint • Non-natural land cover • SOC levels • Erosion levels • Acidification levels • Emissions to air of acidifying compounds
Freshwater realm	<i>Option to focus on freshwater quantity:</i> • Freshwater Quantity	• Water withdrawals (surface or groundwater)
	<i>Option to focus on freshwater quality:</i> • Freshwater Quality (nutrients) • Freshwater Quality (pesticides) • Pesticide Impact Reduction • Highly Hazardous Pesticide Cessation • Pesticide Landscape Engagement	• Nutrient discharge to freshwater systems • Gray water footprint • Pesticide ecotoxicity impact • Highly hazardous pesticide production and/or trade volumes
Ocean realm	Full suite of Ocean targets: • Avoid and Reduce Overexploitation • Protect Structural Habitats • Reduce Risks to ETP Marine Wildlife Populations	• Total marine biomass extraction, by species and stock • Total surface area of aquaculture • Total volume of marine biomass production

*Note: the applicability of these indicators depends on the type of economic activity; not all are required or applicable in all cases. See Task 11 for additional information.

Select value chain focus segments

Companies pursuing the accelerated pathways may choose to focus their assessment on only one of their **value chain segments**: either direct operations or upstream. This choice of **focus segment** may be applied independently for every realm and business unit combination the company is working on. Companies working on the upstream segment that conducted the materiality screening for both primary and secondary activities associated with a single procurement item (or ingredient) may cover multiple upstream stages for the same commodity. SBTN recommends that companies cover both value chain segments (direct operations and upstream) to increase their scope of target-setting opportunities.

The selection of focus segments is subject to sector-specific constraints, and depends on the economic activities within the company's (or business unit's) direct operations and upstream activities:

- SBTN requires that companies mainly engaged in **primary production activities** include direct operations in their assessment, but they may exclude their upstream operations. These excluded activities include those in agriculture (farming, animal husbandry), forestry, fisheries (wild capture and aquaculture), hunting and harvesting of species, and extractives (mining and quarrying). However, companies sourcing HICs as animal feed (e.g., for animal husbandry or aquaculture) may include either value chain segment for their assessment, subject to justification (see below).
- Companies mainly engaged in **manufacturing** activities (e.g., materials and commodities processing and production of packaged consumer goods) may include either their direct operations or upstream segments subject to justification (see below). The reason being that the impact of these activities can vary based on both the type of economic activities and the pressures being evaluated.
- Companies mainly engaged in **construction** and **infrastructure development** may include either value chain segment in their assessment, subject to justification (see below), given the high potential for impacts, especially land

conversion, associated with infrastructure development (on-site transformation), as well as with the extraction of raw materials used in construction (such as sand, iron, and timber).

- SBTN requires that companies mainly engaged in **logistics and distribution** (e.g., commodity traders and aggregators) **and/or wholesale and retail** include their upstream value chain segment in their assessment, but they may exclude their direct operations.

Justify changes to general sector guidance

The requirements were determined based on where the highest share of value chain impacts is expected for a given company.

Companies may deviate from the default segments defined above if they can identify material activities (as defined by the MST or ENCORE) in their preferred segment to set targets or if this segment contains a meaningful proportion of the value chain's environmental pressures relevant to their focus realm.

In these cases, adequate documentation to support the choice is required as part of the validation submission. This evidence may include the following: previous life cycle or other environmental assessments of the company's specific value chains; industry, academic, or scientific reports and papers assessing their sector's typical distribution of impacts across value chain stages; or assessments conducted using approaches, such as environmental footprinting, or input–output models, such as [Exiobase](#). Companies may also use narrative justifications detailing their operating and sourcing practices or policies (as relevant) that could explain why focusing on either segment would enable them to set meaningful targets.

A justification to change the predefined focus segment selection can only be made on the basis of environmental relevance. Feasibility-related factors, including traceability and supplier relationships, cannot be used to justify the change.

Table 5: Sector-specific coverage of direct operations and upstream activities.

Sectors (in direct operations)	Coverage of direct operations activities	Coverage of upstream activities
Animal husbandry and aquaculture activities procuring HICs to use as animal feed in direct operations	Flexible focus based on justification	
All other activities in agriculture, forestry, and fishing (ISIC Section A)	Required as default, can be excluded with justification	Optional inclusion
Mining and quarrying (ISIC Section B)	Required as default, can be excluded with justification	Optional inclusion
Manufacturing: food products, beverages, tobacco products, textiles, wearing apparel, leather and related products, wood and products of wood and cork (exc. furniture), and paper and paper products (ISIC Section C, divisions 10-17)	Optional inclusion	Required as default, can be excluded with justification
All other divisions in manufacturing (ISIC Section C)	Flexible focus based on justification. Upstream focus is recommended for companies sourcing bio-based production inputs	
Construction (ISIC Section F)	Flexible focus based on justification	
Wholesale and retail trade, Transportation and storage, Accommodation and food service activities (ISIC Sections G, H, and I)	Optional inclusion	Required as default, can be excluded with justification

Select a multi-realm approach for agriculture and forestry

Companies with significant direct operations or upstream activities in agriculture or forestry, with known water withdrawals from surface or groundwater bodies (i.e., excluding exclusively rainfed activities), may decide to pursue a **multi-realm approach** focused on land and freshwater target setting, rather than a single-realm accelerated pathway.

In this case, the company would focus on the value chain segment (direct operations or upstream) where primary production activities occur, and in Step 1b they would assess freshwater and land pressures alongside SoN indicators. This approach is designed to set Land, Freshwater Quantity, and Freshwater Quality targets in the same landscape(s), thereby increasing opportunities for co-benefits during implementation of Step 4: Act.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 7.1

Realm and value chain segment selection:

Indicate, for each business unit, which realm(s) and value chain segments they will focus on.

Req. 7.2

Changes to prescribed value chain focus:

Provide sufficient evidence to justify how the chosen segments will allow them to set meaningful targets based on the guidance of this task, if they are changing the prescribed focus segments for their sectors.

To make claims about their progress, SBTN requires that companies disclose, in the Target Tracker, which realms and value chain segment combinations they are working on. Companies are not required to disclose any information justifying their selection.

Recommendations

Rec. 7.1

Realm and value chain segment coverage:

Retain multiple environmental realms and both value chain segments (direct operations and upstream) in scope to increase opportunities for target setting and identify potential co-benefits across targets.



Task 8: Create an inventory of sites and procurement

The purpose of this task is to create a complete inventory of the company's direct operations sites and/or upstream volumes (depending on the chosen value chain segment) that fall within the business units in scope for their assessment.

These in-scope direct operations sites and procurement volumes define the maximum potential extent of the value chain assessment and, later, target setting. The subsequent tasks in Step 1b and 2 require only a subset of these activities to be carried forward to assessment and prioritization, and eventually to target setting. Providing a full inventory is necessary as a transparency measure to contextualize target coverage relative to the company's overall activities.

Companies should note that only activities deemed material for target setting should be included in the assessment. Hence, any site or volume associated only with activities determined to be not material for a specific pressure category in Step 1a should not be included for the purposes of assessing that pressure.

Create an inventory of direct operations production units

In Task 2, companies identified the economic activities within their organizational boundary. In Tasks 4 and 5, companies identified which pressure categories are material for these activities. Finally, if companies decided to focus on specific business units for their assessment, the screening results for the company's activities were extracted in Task 6.

Now, in Task 8, companies identify all the **production units** that fall within their business unit(s) to be included in the scope of their assessment at the time of submission, or within the organizational boundary, if no business-unit focus was selected. This means any production unit owned or controlled by the company's business entities and operations, depending on the approach selected to define the boundary in Task 1.

For each production unit, companies provide a site name or other unique identifying information. They should also indicate whether the unit is a permanent site or a temporary activity location, and identify which group-level ISIC Rev.4 economic activities occur within the unit. Companies then indicate which pressure categories are material for the activities at the site, based on the results of Step 1a. Companies should also provide any additional information necessary to contextualize the specific activities at the site (beyond the ISIC Rev.4 activity name).

Understanding production units

For the purposes of the SBTN methods, **production units** are geographically defined areas where one or more specific economic activities take place under unified operational control or management. This includes facilities, production areas, infrastructure, managed land, natural ecosystems, fishery management areas, and associated operational assets contained within the same general area and operating under shared operational systems, means of production, and/or management practices. A production unit can be a single contiguous area or a set of interspersed areas.

Typically, most production units will be **permanent sites** (e.g., factories, farms, offices), but in some sectors it's common to find **temporary activity areas** where the company participates in projects or in mobile operations. Temporary activity areas include concessions, licensed areas, and other spaces where companies extract natural resources (fishing, logging, mining, etc.) or otherwise modify the landscape (construction, infrastructure development, mining exploration, sea bottom dredging, land clearance, etc.), even if the area is outside their formal land ownership.

A non-exhaustive list of production units includes:

- **In agriculture and forestry:** plantations, farms, ranches, or forest management units.
- **In aquaculture fisheries:** aquaculture farms.
- **In wild-capture fisheries:** fishery management areas where fish stocks are captured.

- **In mining and quarrying:** mining concessions, quarries, or extraction sites.
- **In industry:** factories, processing plants, refineries, mills, or other industrial facilities.
- **In utilities provision:** power generation plants, substations, and water or wastewater treatment facilities.
- **In construction:** construction sites.
- **In service-based sectors:** distribution and logistics centers, retail and wholesale centers, logistics hubs, warehouses, hospitality facilities, office buildings, or data centers.

SBTN developed the following definition of “production units,” building on that of [AFi](#): “A plantation, farm, ranch, or forest management unit, or production site. This includes all plots used for agriculture or forestry that are under one management, located in the same general area, and share the same means of production. It also includes natural ecosystems, infrastructure, and other land within or associated with the plantation, farm, ranch, or forest management unit.” For agricultural and forestry activities, the two definitions are equivalent, but the SBTN definition extends the concept to other sectors and realms relevant to the SBTN methods, for example, fishery management areas.

ACCOUNTING FOR TEMPORAL VARIABILITY IN DIRECT OPERATIONS

Companies need only include production units found in their organizational boundary at the time of submission. This means that permanent sites that were previously owned or controlled by the company (depending on the approach used to define the organizational boundary) should not be included.

Given the dynamic nature of activities in temporary locations, SBTN recommends that companies identify locations where long-term presence is likely, or provide data covering the last five years of activities, when setting targets.

GATHERING SPATIAL DATA

Spatial data are not needed at this point, but SBTN recommends that companies read Task 10 to gain an understanding of data needs and

gather any spatial information that can be used to expedite data collection.

Create inventory of upstream volumes

In Task 2, companies identified their procurement items, including production inputs and, optionally, capital goods and operational support goods, and in Task 3, they identified all high-impact commodities in their procurement. In Task 4 and 5, companies identified which pressure categories are material for these volumes.

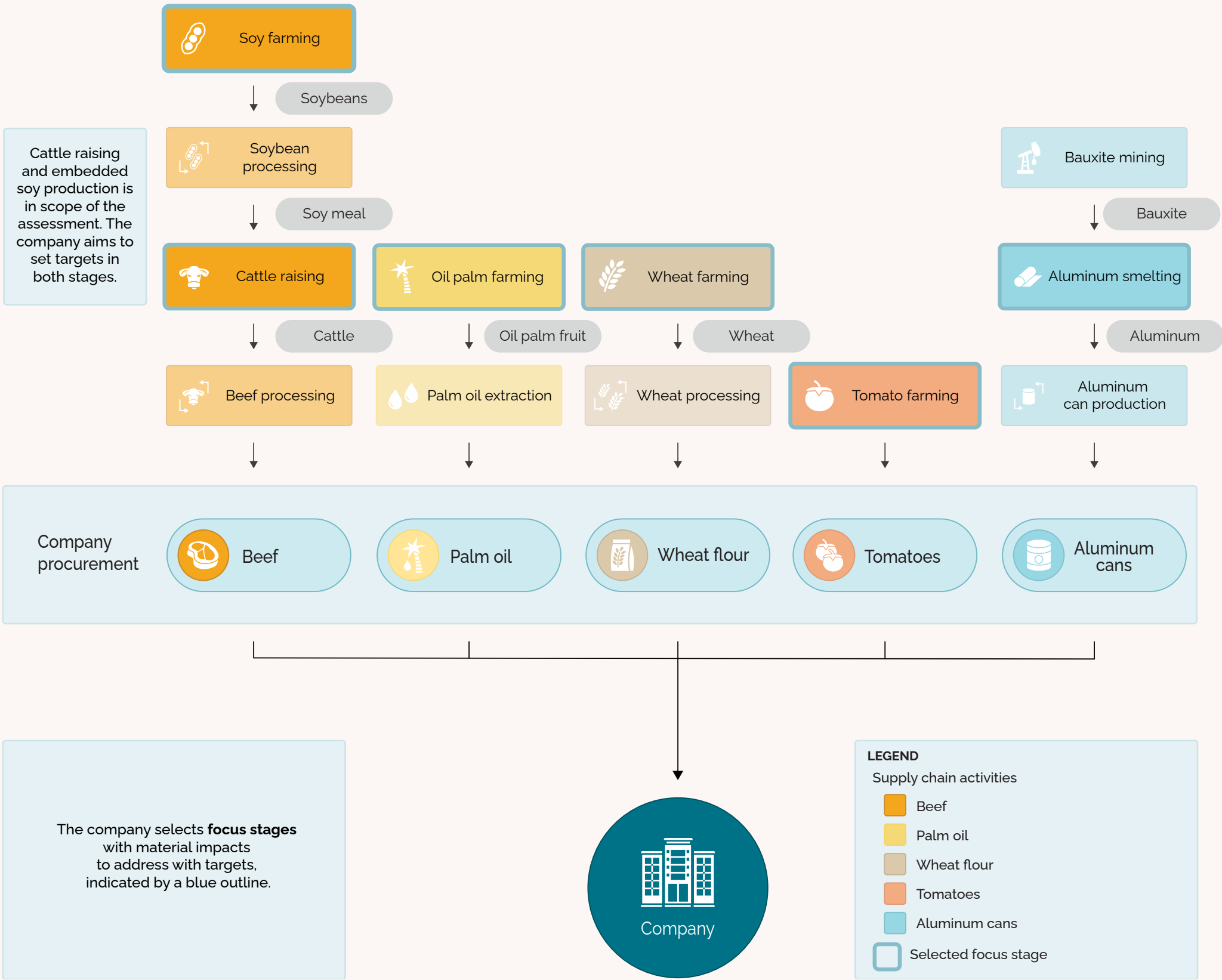
Now, in Task 8, companies detail the list of procurement (from Task 2) indicating the **average annual procurement quantities for each item**, measured in tonnage or equivalent units, over the assessment period (i.e., the five years preceding submission). In the validation submission forms, each unique procurement item is listed as a separate line item, along with its corresponding procurement volume. For most companies, procurement data will be readily available from their internal operations, procurement, or supply chain management teams.

Where procurement consists of processed derivatives of a commodity (e.g., soybean oil, leather, paper, or refined palm oil), companies quantify the volumes procured in the form in which they are purchased. Where necessary to assess earlier value chain stages, these volumes must be converted into the equivalent volumes at the relevant value chain stage being assessed using appropriate factors. For example, raw-equivalent volumes should be used to assess a primary production activity.

For multicomponent procurement items, companies retain the ingredient or component-level disaggregation established in Task 4 for quantification and report those ingredients or components as separate lines. Then, companies indicate the name of each commodity or ingredient, proportion (% of total volume), and volume (metric tons) within the procurement item. As explained in Task 4, any HIC content under 10% of volume and any non-HIC content not recorded separately in Task 4 can be grouped as a single “other ingredients” line.

Figure 4: Potential value chain stages relevant for the upstream assessment. Depending on the procurement item, material pressures may occur at different stages of the upstream value chain, and more than one stage may be relevant for the assessment. A hypothetical company in the food sector, shown in the image below, has multiple procurement items in scope. They have identified different upstream value chain stages associated with their procurement, including the production of feed embedded in their animal products procurement. The company may potentially set targets for any of the activities shown in the image.

Focus stages for upstream commodities



ACCOUNTING FOR TEMPORAL VARIABILITY IN UPSTREAM PROCUREMENT

As value chain activities may vary from year to year, companies quantify volumes based on the average annual procurement during the assessment period (the five years preceding the submission).

Companies may exclude highly atypical years from the calculation if they are not representative of their normal operations and would skew the results. If they do so, companies must justify the rationale for the exclusion as part of their validation process.

Procurement associated with discontinued economic activities (i.e., goods that the company will not continue procuring) should be excluded from this list and from the assessment.

ACCOUNTING FOR CO-PRODUCT VOLUMES

Some production systems generate multiple products and co-products from the same production activity (e.g., meat, hides, and offal from cattle raising, or lumber, wood chips, and sawdust from timber processing). When tracing procurement through the value chain, companies are only required to account for the proportion of production associated with the products or co-products that enter their own value chain. SBTN recommends that companies use an economic allocation approach based on the relative economic value of the products and co-products at the point where they are generated.

For example, companies sourcing corn husks to produce biofuel should account for the impact of the sourced corn husk volumes by calculating the economic value of the husks relative to total corn products and multiplying that by the impact of the corn as a whole. Similarly, companies sourcing leather should estimate only the proportion of livestock production associated with leather, rather than the entire animal.

ESTIMATING EMBEDDED ANIMAL FEED VOLUMES

Companies that source HIC animal-derived products (i.e., products from livestock in the HICL) as part of their production inputs must also quantify the volumes of any soy or oil palm (including any of their derivatives) used as animal feed in the production of these goods. To quantify these embedded commodities, companies estimate:

1. the livestock necessary to produce the products they source;
2. the livestock's feed requirements; and
3. the soy or palm oil content in this feed, expressed in raw-equivalent volumes.

To ensure clarity and visibility in the inventory, the embedded feed volumes are listed as separate line items, with their corresponding volumes (in metric tons), rather than being included within the volume of the associated animal products.

Companies should use statistical datasets, industry averages, supplier-provided data, LCI databases, or peer-reviewed literature to estimate livestock production requirements, feed conversion ratios, expected feed composition, and raw-equivalent soy and oil palm volumes attributable to their procurement, and document their methodology and sources.

ACCOUNTING FOR WASTE AND RECYCLED MATERIALS

Residues, byproducts, waste-derived products, and recycled materials used as production inputs are in scope where they are procured by the company (i.e., when they are purchased). Materials acquired without purchase or where the company is paid to take ownership of them (as may be the case for waste processing companies) should be kept out of scope of the assessment.

For production inputs derived from post-consumer (end-of-life) recycled materials (e.g., discarded paper or cardboard collected from municipal waste streams), companies quantify the procurement volumes of the recycled material itself (and not of the original virgin materials). Guidance on accounting for the associated environmental pressures is included in Task 11.

Validation and claims requirements

To have this task validated, SBTN requires that companies provide the following:

Req. 8.1

Direct operations production unit inventory:

For companies focusing on direct operations, provide a full list (100%) of direct operations production units in scope of the assessment (i.e., sites with material activities for the pressure categories in their selected business unit[s] and focus realm[s]) including site names, identifiers, and associated group-level ISIC Rev.4 economic activities.

Req. 8.2

Upstream procurement volumes:

For companies focusing on upstream, provide a full list (100%) of their procurement volumes, and the associated average annual tonnage of each within the scope of the assessment, disaggregating multi-ingredient procurement items into individual ingredients following the guidance above.

No information associated with this task needs to be disclosed in SBTN's Target Tracker.

Recommendations

Rec. 8.1

Coverage of temporary activities:

For temporary direct operations activities, prioritize locations where the company expects a sufficiently stable, long-term presence to enable meaningful target setting.

Rec. 8.2

Allocation of impacts among co-products:

Use an economic allocation approach based on the relative economic value of different co-products at the point where they are generated to allocate impacts among them.



Task 9: Identify threatened and trade- regulated species in your operations

Flora and fauna species of commercial interest that are facing extinction threats are equally subject to higher traceability and assessment requirements. SBTN refers to two internationally recognized biodiversity conservation mechanisms to identify these species:

- The International Union for Conservation of Nature (IUCN) Red List of Threatened Species, which is the most comprehensive resource on species extinction risk and informs targeted management strategies aimed at preventing further decline.
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendices I, II, and III, which list species threatened by international trade and thus subject to strict trade regulations.

For the value chain segment(s) in scope of the assessment, companies that extract (in their direct operations) or source (as part of their production inputs) any IUCN Red-Listed species classified as vulnerable (VU), endangered (EN), or critically endangered (CR), or any CITES trade-regulated species listed in Appendices I, II, or III must indicate:

- Species names;
- Status and/or appendix in these lists;
- Volumes or quantities; and
- Extraction (or sourcing) locations for the assessment period (the five years prior to submission).

Overexploitation of threatened and trade-regulated species is not covered in the current suite of Step 3 methods, but SBTN requires transparency on sourcing volumes and locations as part of the value chain assessment. In some cases, where these species coincide with commercially sourced fish stocks, the Ocean targets may address these impacts.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 9.1

List of species in direct operations:

For companies assessing direct operations, list all species they produce or extract, as part of their direct operations, that have threatened status in the IUCN Red List (i.e., the categories of critically endangered, endangered, and vulnerable) or are listed in CITES Appendices I, II or III, noting species names, status and/or appendix, volumes or quantities, whether the species is extracted or produced, locations for these activities, and any relevant information regarding production or extraction practices.

Req. 9.2

List of species in upstream:

For companies assessing upstream, list all IUCN Red-Listed and CITES-listed species they procure as part of their upstream production inputs, including species names, status and/or appendix, volumes or quantities, locations of origin, and any relevant information regarding sourcing practices or policies.

Companies must disclose whether or not they source IUCN-threatened or CITES-listed species as part of their disclosure for Step 1: Assess.

An aerial photograph of a dense forest. The trees are mostly green, with some showing yellowish-green hues, suggesting a mix of species or seasonal changes. A dirt road or path is visible in the upper left corner, winding through the forest. The overall scene is a lush, green landscape from a high-angle perspective.

“After identifying threatened and trade-regulated species in their operations, companies determine target boundaries and potential target-setting locations.”

Task 10: Determine target boundaries and potential target-setting locations

The methods for Step 3: Measure, Set, & Disclose require different levels of spatial granularity depending on the environmental realm and target-setting method. These spatial requirements reflect the geographic scales at which pressures are assessed, targets are set, and actions are expected in Step 4: Act.

In Task 10, companies will identify potential target-setting locations in their direct operations and upstream activities, classifying the upstream locations into two target boundaries (A and B) defined by spatial data availability and readiness for target setting.

Understanding the Concept of Target Boundaries

The concept of **target boundary** refers to the entirety of a company's activities determined to be relevant for target setting and for which the company is expected to take action. For an activity to be included within a target boundary it must be considered to have material environmental impacts for a given pressure category (as defined in Step 1a) and be applicable for a corresponding target setting method (given the Step 3 requirements). Activities in the target boundary are subject to assessment, target-setting, and tracking. Inclusion in a target boundary establishes the company's responsibility to address the activity through target setting, even where the spatial information needed to apply the relevant Step 3 methods is not yet available.

Companies have different levels of visibility, influence, and access to data across their direct operations and upstream activities. Hence, target boundaries are divided by value chain segment, with direct operations constituting a separate target boundary. Within the upstream segment, given that minimum spatial resolutions are needed to implement the methods and act on the targets, locations are divided into two different target boundaries (upstream A and upstream B) depending on traceability.

Companies assign their material, in-scope activities to the applicable target boundaries. This follows the materiality screening, the optional use of the accelerated pathways to define the scope of application of the methods by business unit, environmental realm, and value chain segment, and the traceability levels available for upstream procurement.

Target boundaries are used for assessing progress with target setting, in particular to determine coverage of activities with target setting, and are used in SBTN's Target Tracker for transparency purposes.

Table 6: Spatial granularity required for the SBTN target-setting methods.

Realm	Target-setting method	Necessary spatial granularity
Freshwater	Freshwater Quantity	Pfafstetter Basin Level 5*
	Freshwater Quality - nutrient loading, pesticide impact reduction, and highly hazardous pesticide cessation	Pfafstetter Basin Level 6*
Land	No Conversion of Natural Ecosystems & Working Land Regeneration and Restoration - Land Area and Land Quality	Direct operations: production unit Upstream: production unit, primary point of aggregation, or sourcing area**
	Landscape Engagement	Flexible
Ocean	Avoid and Reduce Overexploitation	Marine management area
	Protect Structural Habitats	
	Reduce Risks to ETP Marine Wildlife Populations	

*Any location known at the production unit or primary point of aggregation should be able to be placed within the relevant Pfafstetter basin. In certain cases, once companies start implementing Step 3, they will find they need to use local hydrological models with a different spatial granularity (i.e., a different basin level to model local hydrology). In these cases, companies will adjust the spatial granularity used in Step 3.

**The Step 3 Land methods include complementary approaches to determine that upstream procurement is conversion-free even in the absence of precise spatial information. The No Conversion of Natural Ecosystems target can be set without any minimum level of initial traceability; instead, companies commit to achieve 100% traceability by the target date. See the Step 3 Land methods for more information.

Identifying target-setting locations for direct operations activities

For direct operations, companies must provide the precise locations of all production units in scope for the assessment that are material to their chosen realm(s). This means identifying the address, coordinates, or other precise spatial information concerning the company's facilities or areas of operation that enable the company to assess the environmental pressures using primary data and to place the activity in the context of the surrounding ecosystems.

The location of all material direct operations sites must be identified with sufficient spatial granularity to implement the associated methods for Step 3: Measure, Set, & Disclose. All material direct operations activities correspond to the direct operations target boundary.

IDENTIFY PRODUCTION UNITS FOR LAND AND OCEAN TARGETS

For activities material for Land targets, companies must identify the production units where the activity takes place. In most cases, identifying the site's perimeter is necessary to assess its pressures for the two targets, No Conversion of Natural Ecosystems and Working Land Regeneration and Restoration. In all cases, companies must at least be able to identify the ecoregion, as defined by [Dinerstein et al. \(2017\)](#), where the activity happens in order to proceed to target setting.

For activities material for Ocean targets, companies must identify the marine management areas where they conduct wild-capture fishing or where their aquaculture sites are located. This information is necessary to set all three of the Ocean targets.

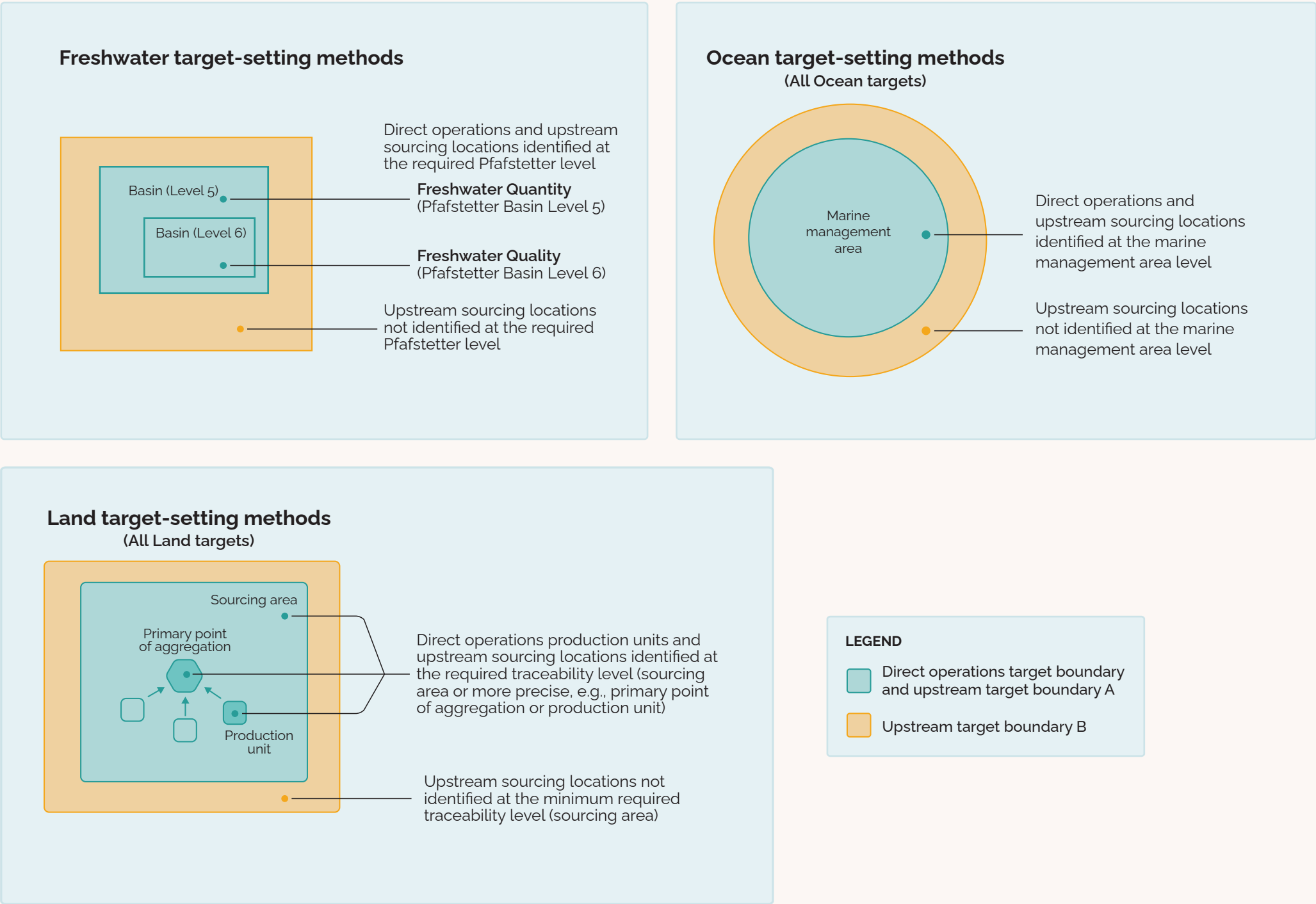
AGGREGATE PRODUCTION UNITS AT THE BASIN SCALE FOR FRESHWATER TARGETS

As noted in the table above, Freshwater Quantity and Quality targets (for nutrients and for pesticides) are addressed at the basin scale for prioritization, target setting, target implementation actions, and tracking. This means that each basin is treated as a single **target-setting unit** where all activities are covered under a single target. These targets are met when **net reductions** in water withdrawals, nutrient loading, or pesticide impacts are achieved at the basin scale.

With precise spatial information (e.g., coordinates), companies will be able to identify the adequate basins using tools such as the adapted version of the [Water Footprint Assessment Tool, made for SBTN](#). For Freshwater Quantity targets, the appropriate scale is Pfafstetter Basin Level 5; for Freshwater Quality targets, the appropriate scale is Pfafstetter Basin Level 6. Companies identify all production units grouped under the same basins. For subsequent method tasks, all activities grouped under the same basin will be treated as a single unit. For example, in Task 11, the total pressures from all activities in the same basin are aggregated; in Tasks 12 and 13, the basin scale is the reference at which the SoN is assessed; and in Step 2, companies determine target-setting priorities basin by basin. Companies must nevertheless retain the data for each individual production unit, as these data may be required to set targets in Step 3.

Figure 5: Spatial units and levels of granularity for target setting. The Land, Freshwater, and Ocean target-setting methods use different spatial units and may require different levels of spatial granularity to define target boundaries and set targets.

Locations and spatial units for target setting



Identifying target-setting locations for upstream activities

Companies identify the **location(s) of upstream activities** associated with their procurement. These will be the locations of their suppliers' activities: where their production inputs are produced, processed or manufactured. Locations of origin can refer to any value chain stage, from primary production of raw materials, to manufacturing activities associated with intermediate and final processing stages for finished products. Each location can be defined in terms of production units, primary points of aggregation, or broader spatial areas (such as a subnational region or country of origin), depending on traceability.

Companies trace their supply chains until they reach the value chain stage(s) associated with the economic activities screened for materiality (in Tasks 4 and 5). In most cases, for example with HICs, this means that tracing the supply chains to primary production is required. Where secondary production practices have also been included in the materiality screening and companies intend to assess and set targets for these activities, the locations associated with those value chain stages must also be identified. For procurement items not containing HICs, the supply chains need only be traced to the production activity most directly associated with the procured product. Further tracing is necessary to assess and set targets for earlier value chain stages, but this is not required as part of the validation requirements. As noted in Tasks 4 and 8, ingredients in complex products must be treated as individual line items for the purposes of the assessment and location mapping.

Companies list, for each upstream procurement item and, where applicable, each disaggregated ingredient or component: the volumes coming from each upstream location of origin (production unit or primary point of aggregation); the name or other unique identifiers for the location of origin; and the location of the site, using the most precise information available, such as coordinates or street address.

SBTN recommends that companies pursue traceability to the most precise levels possible (i.e., to the production-unit level). Higher traceability enables the following: more accurate baselines (in Step 1b); improved prioritization decisions (in Step 2); more precise target setting (in Step 3); increased flexibility in terms of available actions to achieve the targets (in Step 4); and more accurate monitoring, reporting, and verification (MRV) options (in Step 5). In some cases, intermediate traceability levels are sufficient to set targets.

APPROXIMATING SOURCING LOCATIONS WITH MODELS AND STATISTICAL DATA

Companies may use statistical and other models to estimate any sourcing locations to the necessary level to set targets. Companies that wish to use such approaches should take the necessary measures to ensure sufficient certainty in their estimates. Companies may use the [Spatial Production Allocation Model \(MapSPAM\)](#) to estimate the location of origin of many agricultural commodities for which at least the country of origin is known. For Freshwater targets, the Aqueduct Food tool incorporates MapSPAM and Aqueduct data to indicate basins of origin.

For commodities not covered in [MapSPAM](#), other relevant resources include environmentally extended input-output (EEIO) models and databases (e.g., [EXIOBASE](#) or [Eora](#)), life cycle assessment methods (e.g., [IMPACT World+](#)) and life cycle inventory databases (e.g., [ecoinvent](#), the US [Federal LCA Commons](#), or the [European Platform on LCA](#) (EPLCA)). SBTN recommends that companies combine these and other approaches, such as spatial modeling and remote sensing, to address their needs. Additional tools are available in the [SBTN Tool Library](#).

IDENTIFY TARGET-SETTING LOCATIONS FOR LAND TARGETS

Companies setting upstream Land targets have greater flexibility in terms of the required spatial granularity. Companies that have identified production units of origin can and should use these to set targets, as this detailed information will provide the best opportunities for target setting, achievement, and MRV actions. Identifying the production unit's perimeter is helpful for setting the No Conversion of Natural Ecosystems and the Working Land Regeneration and Restoration targets.

For cases where current traceability levels do not allow identification of production units, identifying primary points of aggregation is a helpful, intermediate step that can be used to complete the SBTN methods. These sites, including mills, grinders, refineries, packing facilities, and warehouses, act as primary processing or collection points for the output of all surrounding production units in a region.

In all cases, companies must at least identify the ecoregion, as defined by [Dinerstein et al. \(2017\)](#), where the activity takes place in order to proceed to target setting.

IDENTIFY TARGET-SETTING LOCATIONS FOR OCEAN TARGETS

For activities material for Ocean targets, the upstream requirements match those for direct operations. Companies must identify the marine management areas where companies source their wild capture or aquaculture seafood. This information is necessary to set all three of the Ocean targets.

AGGREGATE PRODUCTION UNITS AT THE BASIN SCALE FOR FRESHWATER TARGETS

For Freshwater targets, the upstream requirements match those for direct operations. Companies must aggregate sourcing locations to Pfafstetter Basin Level 5 or 6, depending on the target they are working on. As with the direct operations data, companies must retain the data for each individual sourcing location, as these data may be required to set targets in Step 3.

For upstream, companies are strongly recommended to use [MapSPAM](#) to approximate the sourcing basins for agricultural commodities. Companies will be able to set targets using the Step 3 Freshwater methods, focusing on the basins that are statistically likely to provide their procurement goods.



DETERMINE EXTENT OF THE UPSTREAM TARGET BOUNDARIES A AND B

Companies determine, for each upstream sourcing location, whether there is sufficient spatial granularity to implement the applicable Step 3 methods as defined in Table 6 above.

Upstream volumes associated with locations that meet the spatial requirements to implement the applicable Step 3 methods fall within upstream target boundary A. All remaining upstream volumes fall within upstream target boundary B.

Both upstream target boundaries represent material upstream activities that the company is responsible for addressing through target setting. The distinction between these target boundaries reflects companies' **readiness to apply the Step 3 methods**.

Locations in target boundary B will require additional traceability efforts before the Step 3 methods can be implemented. For transparency purposes, companies list the best-known location of origin for each procurement item:

- Subnational locations: first- (e.g., state or province) or second-level (e.g., municipality) administrative units within countries, when these are coarser than the target boundary A levels.
- National (or equivalent) locations: any of the United Nations member states, observer states, non-member states, or non-self-governing territories.
- Subregions: 22 geographical subregions (UNSD M49), as defined by the UN Statistical Division (UNSD) as part of the [UN geoscheme](#).
- Global: to be used for sourcing that cannot be traced to any better level (i.e., fully unknown origin locations).

SBTN recommends that companies advance traceability efforts to identify production units of origin for as many upstream volumes as possible. **There is no minimum level of upstream target boundary A volumes required to proceed to validation, and no limit in the proportion that may remain in target boundary B.** Companies are nevertheless recommended to advance traceability efforts and identify the production units of origin for as many of their procurement volumes as possible.

With the exception of the No Conversion of Natural Ecosystems target, the Step 3 methods cannot be applied to locations in target boundary B because they do not meet the spatial granularity requirements for their implementation. However, activities at these locations remain within the company's target-setting responsibility and must be addressed as traceability improves.

The technical guidance for Step 2: Interpret & Prioritize includes Traceability Improvement targets and Supplier Engagement targets, applicable to activities in upstream target boundary B locations. These are **enabling targets**, rather than science-based targets, which use the Step 3 methods and provide pathways for the future application of the Step 3 methods.

In contrast to the other Step 3 targets, the No Conversion target is a company-wide target that must necessarily cover all upstream target boundary A and B locations from the beginning.

DISCLOSING TRACEABILITY LEVELS

To provide transparency on their traceability progress, companies disclose, in SBTN's Target Tracker, the proportion of HIC volumes in each upstream target boundary (A and B) at the time of submission. SBTN understands that traceability is challenging, and the Target Tracker will help highlight progress and contextualize gaps.

For non-HIC volumes, disclosing traceability levels is not required. However, companies may optionally disclose any traceability levels for any commodity of interest to them in the dashboard. This is recommended for companies that want to contextualize their existing traceability efforts and for companies that intend to cover significant non-HIC volumes in their target setting.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 10.1

Direct operations location mapping:

For companies assessing direct operations, provide a full mapping of their in-scope direct operations sites, divided into the relevant basins in the case of Freshwater targets, covering 100% of their sites.

Req. 10.2

Upstream sourcing location mapping:

For companies assessing upstream, provide a full mapping of the locations of origin for the relevant value chain stages of 100% of the in-scope procurement volumes to the level of the production unit or any approximate level available, indicating the HIC and non-HIC volumes in target boundary A and B. In the case of freshwater targets, locations must be divided into the relevant basins.

No disclosures are required to make claims on the mapping of direct operations locations. For upstream locations, SBTN requires that companies disclose their traceability progress in the Target Tracker, indicating the percentages (by tonnage) of procurement in target

boundaries A and B. Companies may provide any supporting narrative, including references to their websites, explaining ongoing efforts to advance their traceability. Companies are not required to disclose the actual spatial locations.

Recommendations

Rec. 10.1

Upstream traceability:

Where feasible and appropriate, pursue improved traceability with the aim of identifying production units of origin.

Rec. 10.2

Estimation of upstream locations:

Use appropriate statistical, spatial, or other modeling approaches to estimate sourcing locations at the resolution needed to set targets where direct traceability is not available.

Task 11: **Quantify the environmental pressures of your activities**

Companies assess the environmental pressures generated by their direct operations activities and the upstream activities associated with their procurement for the pressure categories relevant for their selected realm(s), depending on the materiality results of Step 1a (e.g., water quality, land use change, etc.).

The upstream pressure assessment builds on the procurement volumes established in Task 8. Companies quantify the environmental pressures generated by the upstream activities necessary to produce the volumes of production inputs and, optionally, the capital goods and operational support goods, that they have included in their upstream assessment scope. Where procurement volumes were estimated using allocation approaches for co-products, byproducts, residues, or embedded animal feed, the same allocation should be applied consistently when quantifying the associated environmental pressures.

Understanding the scope of the Assessment

As a validation requirement, companies must assess the material environmental pressures for 100% of their direct operations sites and activities, at least 90% of HIC content and 90% of their non-HIC content in their upstream procurement volumes (i.e., up to 10% of HIC content and 10% of non-HIC content, measured by tonnage, may be excluded from the upstream assessment). These coverage percentages are calculated against the full inventory of material direct operations sites and upstream procurement volumes in the scope of the assessment, as established in Task 8. For the upstream segment, procurement volumes that are not assessed in Task 11 will not be included in further tasks of Step 1b, and remain out of scope for Steps 2 and 3 of the methods.

SBTN recommends that companies exclude, as part of this 10% allowance, small and/or difficult-to-trace-volumes, for example, those associated with fractional components in their

production inputs, which may not be feasible to set targets for or conducive to large impact reductions. However, these volumes are still considered material for target setting, and SBTN recommends that companies include them in future validation submissions. Companies setting a No Conversion of Natural Ecosystems target should note that this target also allows a maximum exclusion of 10% of material volumes from its scope, but the options to exclude 10% of volumes from the Step 1b assessment and Step 3 target setting are not cumulative.

Understanding the Data Sources for the Assessment

Companies can complete the pressure assessment using primary data or by using estimates based on secondary data. They may combine primary and secondary data and modeled approaches to quantify their pressures, provided the selected indicators are consistent within each value chain segment and upstream target boundary, since the pressures will be compared in Step 2.

Companies can leverage existing sustainability reporting and traceability systems in their supply chains to gather pressure data for the indicators specified for this task. The guidance below includes options for assessing pressures using primary and secondary data, and, in some cases, indicator options to accommodate different traceability levels.

SBTN recommends that companies use primary data for their assessment whenever available. Primary data generate more accurate results in Step 2: Interpret & Prioritize, and can be used directly as a target baseline in Step 3: Measure, Set, & Disclose. In the absence of primary data, companies may use secondary data or modeled estimates to complete the assessment, with the understanding that results will be less accurate and that baselines may have to be recalculated using more precise information before setting targets in Step 3 or proceeding to implement response options in Step 4. For upstream volumes, especially those in upstream target boundary B, the use of secondary data is recommended to facilitate the completion of the pressure assessment.

Companies must document all data sources, tools, and approaches used in their pressure assessments. They should note whether each assessment was based on primary data (e.g., direct observations and measurements at the site, satellite-based measurements, or data provided by suppliers) or on secondary data and models (e.g., estimations based on production volumes using LCI databases, LCIA impact-calculation methods, or conversion factors based on average yields or other sectoral information). SBTN recommends that companies retain any relevant temporal and methodological metadata associated with their pressure estimates, including the measurement and assessment period and any calculation assumptions, as this information may be helpful to establish target baselines in Step 3: Measure, Set, & Disclose.

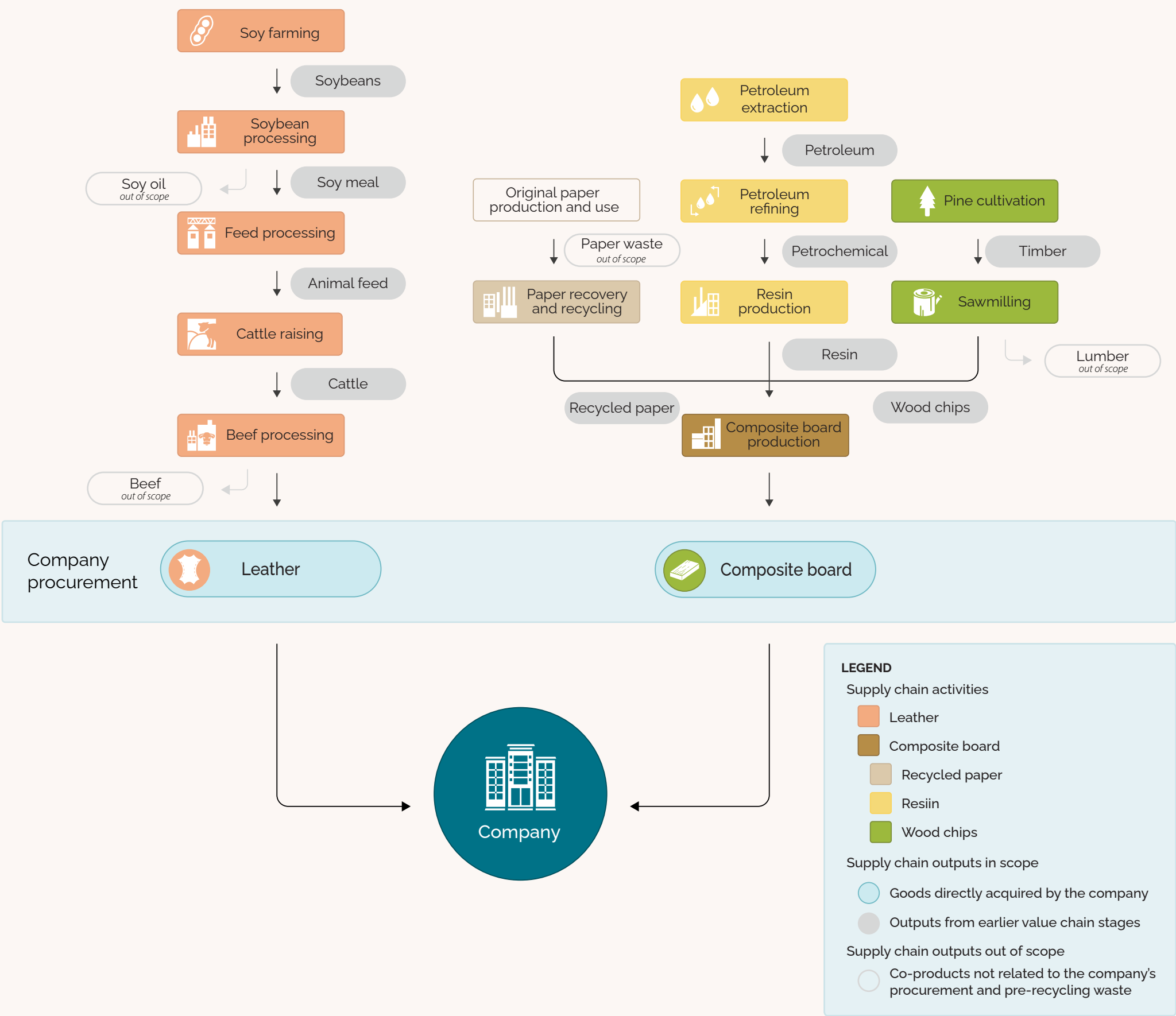
Life cycle assessment tools can provide pressure estimations where primary data are not available. This can be particularly useful for the upstream assessment. Given that these tools provide aggregated impacts for all upstream value chain

stages associated with a product or material (i.e., using a cradle-to-gate scope), companies assessing intermediate production stages are advised to subtract pressures from preceding stages to obtain a more accurate estimate of the pressures at the focus stage of interest. For example, for the assessment of soybean oil production, the life cycle impacts of soybean cultivation (the input stage) would be subtracted from the ones of oil production (the seed crushing and oil extraction and refining stage). For procurement of post-consumer (end-of-life) recycled materials, companies account for the impacts associated with the recovery and production of the recycled material (e.g., collection, transportation, sorting, and reprocessing). The pressures associated with the original primary production system (e.g., forestry production) are not attributed to the company. Where industry or national accounting standards provide guidance on accounting approaches for end-of-life (EOL) recycled materials, SBTN recommends that companies apply those standards in their accounting.



Figure 6: Inventory and disaggregation of production inputs.
Production inputs are traced through multiple upstream activities, including intermediate processing and primary production stages, to identify the potential activities that can be covered with targets. Some goods, such as composite boards in the example below, may contain multiple ingredients or components, which need to be individually traced to their locations of origin. Other goods, such as soy, cattle, and timber, as outlined in the example below, may have associated co-products not related to the company's procurement. These co-products should be excluded from the assessment, using an allocation approach to account for a share of the activity's impacts to the company's upstream assessment.

Inventory of production inputs



Assessing environmental pressure indicators

Companies assess the pressure indicators relevant for their activities for each direct operation or upstream location, depending on the pressure categories identified as likely to be material for target setting in Task 4 and 5 of Step 1a.

MATERIAL ACTIVITIES FOR FRESHWATER QUANTITY TARGETS

- **Water withdrawals:** Total water withdrawals in the basin (m3 per month or year), including surface withdrawals, groundwater withdrawals, and supply from the municipality grid. Where disaggregated data are available, companies should separately quantify water from each source (withdrawals per source type), but can otherwise also report a single total value (total withdrawals). If disaggregated data are available, rainfed water use is excluded from this indicator as it is not covered by the Step 3 targets.
 - In locations with nonconsumptive water use, companies should subtract water returns from their withdrawals in cases where the returns happen in the same location, in the same time period (month or year), and with the same water quality (e.g., temperature, oxygen concentration, nutrient and pollutant concentration) as the withdrawals.
 - For upstream locations with incomplete traceability, companies may refer to LCI databases (e.g., [ecoinvent](#) and [Agri-footprint](#)) or regionally relevant water-use datasets to estimate water withdrawals associated with their procurement from each location.

Companies may also refer to TNFD's core global disclosure metric C3.0 on **water withdrawals and consumption from areas with water scarcity**, in the [TNFD recommendations \(2026\)](#), and related guidance by sector, for additional guidance relevant to this indicator.

MATERIAL ACTIVITIES FOR FRESHWATER QUALITY (NUTRIENT) TARGETS

- **Nutrient discharge to freshwater systems:** Total nutrient loading (kg N and kg P, per month or year) in wastewater streams or from agricultural runoff discharged to the environment. SBTN recommends that companies use this indicator where possible, as opposed to gray water footprint (described below), because pressures specified in terms of nutrient discharge can be used directly to define baseline pressures in Step 3.
 - Nutrient discharge for wastewater streams that have been treated in-house must be quantified post-treatment (i.e., as it is released into the environment).
 - Wastewater streams that are sent for treatment (post-in-house treatment) at third-party wastewater treatment facilities are excluded from this indicator as they are not covered by the Step 3 targets. Nutrient discharge to freshwater systems can be quantified as zero for the purposes of completing the validation forms in these cases, with an explanation.
 - For sites where nutrients are delivered to freshwater via agricultural runoff and/or upstream locations with incomplete traceability, companies may refer to LCI databases (e.g., [ecoinvent](#) and [Agri-footprint](#)) to quantify modeled N & P emissions to freshwater (kg N, kg P) associated with their procurement.

- **Gray water footprint:** Volume of freshwater required to assimilate nutrient pollution to meet water quality standards (m3 per month or year). Companies may use this indicator where direct estimates of nutrient discharge are not readily available. The use of monthly values is recommended but not required. Companies may refer to the [Water Footprint Network](#) or LCI databases (e.g., [ecoinvent](#) and [Agri-footprint](#)) for datasets to use this indicator. Companies can refer to the Step 3 Freshwater methods for further guidance on the use of this indicator.

Companies may also refer to TNFD's core global disclosure metrics C2.0 and C2.1 on **pollutants released to soil split by type and wastewater discharged**, in the [TNFD recommendations \(2026\)](#), and related guidance by sector, for additional guidance relevant to this indicator.

MATERIAL ACTIVITIES FOR FRESHWATER QUALITY (PESTICIDES) TARGETS

- **Pesticide ecotoxicity impact:** For activities in agriculture, forestry, or other sectors that apply pesticides, total ecotoxicity impacts in the basin from annual pesticide usage, calculated in equivalent Comparative Toxicity Units (CTUe) using SBTN's Pesticide Impact Quantification (PIQ) tool, for the Pfafstetter Level 6 basin. Please refer to the PIQ tool manual for additional guidance on how to complete these calculations.
 - Alternatively, for agricultural, forestry, or other activities known or suspected to use pesticides, companies may use the **nutrient discharge to freshwater ecosystems** indicator used for Freshwater Quality (nutrient) targets. Pesticide and nutrient pollution often occur together in intensive agricultural systems and nutrient discharge may be used as a proxy for pesticide use for the purposes of completing Step 1b. In order to enable comparison across basins in Step 1b, SBTN requires that companies use either **pesticide ecotoxicity impact** or **nutrient discharge to freshwater systems** across all basins in the target boundary, but they may use one indicator for direct operations and a different one for upstream activities.
- **Highly hazardous pesticides trade and production:** For activities in chemical manufacturing and trading, volume (tonnage or equivalent) of highly hazardous pesticides (HHPs) produced and/or traded per year (depending on the company's activities), and per pesticide active ingredient. For the purposes of the SBTN methods, HHPs are those included in the Pesticide Action Network's (PAN) International List of HHPs. See the Step 3 Freshwater methods for further information.

MATERIAL ACTIVITIES FOR THE NO CONVERSION OF NATURAL ECOSYSTEMS TARGET

- **Conversion of natural ecosystems:** Total area (hectares) of natural land converted since 2020. SBTN recommends that companies refer to the SBTN Natural Lands Map to determine which land areas are considered natural.
 - For direct operations and all upstream volumes in target boundary A, companies compare current satellite data or other primary data for the site against the Natural Lands Map and calculate the total conversion between the two sets within the site's demarcated georeferenced boundaries (i.e., polygons). For sites smaller than 10 hectares, a circular area with a 200-meter radius around the central coordinate of the site can be used instead of the polygon (companies may then use polygon data to refine the calculation in case that conversion is detected in the radius). This value is indicated to SBTN as "measured conversion within production units."
 - For upstream volumes where companies have identified sourcing from a collection point or primary processing site (e.g., a mill) but not the specific production units, companies may optionally determine an appropriate sourcing area or supply shed associated with the collection point or primary processing site and quantify conversion within that area. This supply shed should represent the known or likely production areas supplying the collection point or primary processing site and may be delineated using land use maps, commodity production areas, units with shared management practices, or other relevant information. Where this information is not available, companies may define a radius around the location as a proxy. The specific dimension of the radius should be appropriate for the commodity and context of the site. This value is indicated to SBTN as "potential conversion within the sourcing area."
 - For upstream volumes where companies have identified a sourcing landscape (e.g., a jurisdiction) but no specific production units, companies may optionally calculate the conversion value for the sourcing region. This value is indicated to SBTN as "potential conversion within the sourcing region."
 - For upstream volumes in target boundary B, companies may use LCI-based approaches (such as [ecoinvent](#) or [Agri-footprint](#)) to estimate **land transformation** (ha of conversion from natural or semi-natural land) based on their procurement volumes (tonnage) from the location. Companies should note that this indicator is different from **land occupation** and should verify that their selected database explicitly models land transformation flows rather than other land-related impact factors.
 - Any upstream volumes (regardless of whether they are in target boundary A or B) procured from certification schemes that ensure no conversion with physical chain-of-custody systems can be indicated as "certified no conversion with physical chain of custody by [certification name]." Companies must provide evidence that the certification they use provides sufficient assurances of no conversion as part of their validation process. These volumes will remain in the scope of the assessment and kept in the No Conversion of Natural Ecosystems target boundary, but considered as conforming with the target requirements from the beginning. Further guidance is included in Steps 3 and 4.

Companies may also refer to TNFD's core global disclosure metric C1.1 on **extent of land/freshwater/ocean-use change**, in [the TNFD recommendations \(2026\)](#), and related guidance by sector, for additional guidance relevant to this indicator.

MATERIAL ACTIVITIES FOR WORKING LAND REGENERATION AND RESTORATION TARGETS

The Working Land Regeneration and Restoration target has two components: Land Area targets and Land Quality targets. For each activity, SBTN requires that companies assess at least one indicator from the list below, but they may choose which indicator, depending on an assessment of which targets are feasible or relevant to act on. This will, in turn, inform which indicators should be assessed in the Step 1b assessment in preparation for Step 3 target setting. Companies should refer to the Step 3: Land guidance for further information.

To set **Land Area targets**, companies assess either of the following indicators:

- **Agricultural land footprint:** Total working land area (hectares) occupied by agricultural activities in the terrestrial ecoregion. This indicator is only applied to farming, animal husbandry, and forestry activities and excludes the land footprint associated with any other activities.
 - For upstream volumes with complete traceability (traced to production unit), this indicator may be calculated from site information or satellite data. Non-working land (e.g., natural land) within a production unit should be excluded from the calculation.
 - For upstream volumes with incomplete traceability, companies may estimate their pressures by multiplying their procurement volumes (tonnage) in the location against regional yields for the crops (metric tons/ha) or they may assess it as **land occupation** ($m^2 \cdot year$) using LCI databases (such as [ecoinvent](#) or [Agri-footprint](#)). Both indicators are equally acceptable, so long as they are used consistently across all locations.
 - The land footprint associated with the production of any non-timber forest products in forested areas should be considered as zero.
- **Non-natural land cover:** Percentage of land area classified as not natural within each production unit primarily engaged in farming, animal husbandry, forestry, mining, and quarrying activities (calculated as the total non-natural area divided by total area in the production unit).
 - To assess this indicator, companies compare the polygons delineating the production units against SBTN's Natural Lands Map as a reference to determine what constitutes non-natural lands, or may use any other more recent or higher-resolution dataset.
 - This indicator may optionally be assessed for production units engaged in other types of economic activities if companies consider them relevant for setting the Natural Land Cover target. Companies must demonstrate that the site is ecologically connected to an agricultural or natural landscape where land-cover interventions are relevant and feasible.
 - This indicator is not expected for upstream volumes, but companies may assess it for upstream activities with full traceability that they want to include in upstream target setting.

Companies may also refer to TNFD's core global disclosure metric C1.0 on **total spatial footprint**, in the [TNFD recommendations \(2026\)](#), and related guidance for the [food and agricultural sector \(2024\)](#), for additional guidance relevant to these two indicators.

To set **Land Quality targets**, companies assess any of the following indicators:

- **Soil organic carbon (SOC):** Depletion of SOC in the production unit, a key indicator of soil quality, which can serve as a proxy for a variety of ecosystem services. SOC levels from land use practices and management can be estimated using the Land Environmental Assessment Factors (LEAFs) available in the Step 3 Land methods.
- **Soil erosion rate:** Rate of soil loss through erosion in the production unit, which affects organic matter and nutrient content, breaks down soil structure, generates aquatic impacts through sedimentation, and increases the risk of flooding and landslides. Soil erosion rates from land use practices and management can be estimated using the LEAFs available in the Step 3 Land methods.
- **Terrestrial acidification:** Soil acidification levels derived from the deposition of nitrogen and sulfur compounds (NH₃, NO_x, SO_x), which can reduce soil fertility and affect plant diversity and species richness.
 - Terrestrial acidification rates from land use practices and management can be estimated using the LEAFs available in the Step 3 Land methods.
 - Additional emissions from fossil fuel combustion (e.g., from agricultural machinery) must be quantified as acidification emission flows, and then converted into acidification potential. Companies may refer to LCI databases (e.g., ecoinvent and Agri-footprint) to quantify acidification emission flows (kg NH₃, kg NO_x, kg SO₂) associated with their procurement.
 - SBTN recommends that companies use the Roy et al. (2014) characterization factors for terrestrial acidification to best align with the Step 3 Land methods, but they may use other LCIA methods as well.

Companies should refer to the SBTN Land: Accounting Guidelines for Impacts on Land Use and the Environment (AGILE) for further technical guidance on how to assess SOC, soil erosion rate, and terrestrial acidification impacts.

MATERIAL ACTIVITIES FOR AVOID AND REDUCE OVEREXPLOITATION, PROTECT STRUCTURAL HABITATS, AND REDUCE RISKS TO ETP MARINE WILDLIFE POPULATIONS TARGETS

- **Total marine biomass extraction, by species and stock:** Volume (tonnage) of wild-caught fish, seafood, or other marine species in the marine management area.

Companies may also refer to TNFD's core global disclosure metric C1.0 on **total spatial footprint**, in the [TNFD recommendations \(2026\)](#), and related [sector guidance for the fishing sector \(2025\)](#), for additional guidance relevant to this indicator.

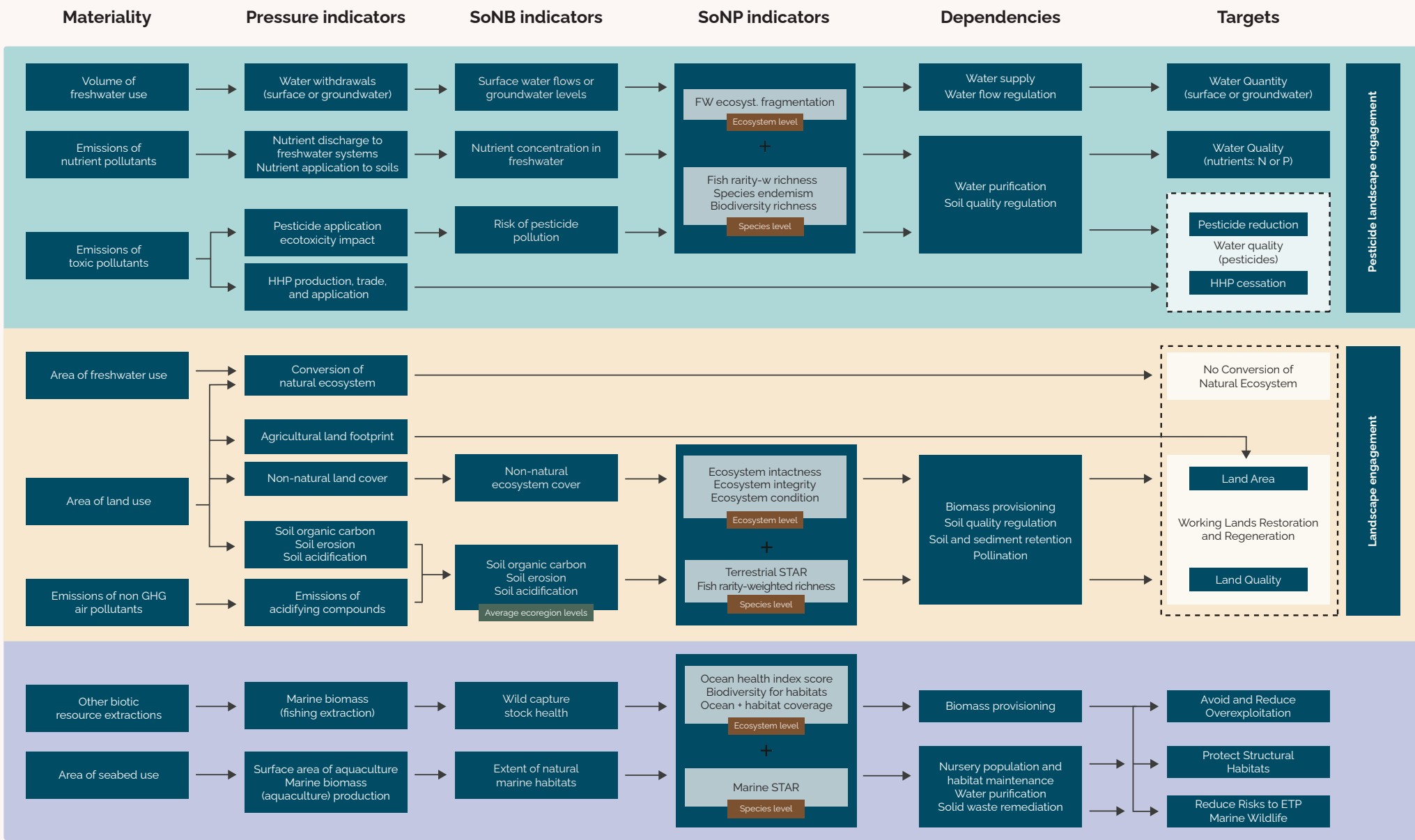
MATERIAL ACTIVITIES FOR PROTECT STRUCTURAL HABITATS AND REDUCE RISKS TO ETP MARINE WILDLIFE POPULATIONS TARGETS (BUT NOT FOR AVOID AND REDUCE OVEREXPLOITATION)

- **Total surface area of aquaculture (hectares) or total volume of marine biomass production (tonnage)** from all production units in the marine management area. Surface area is the preferred indicator because it will yield better results in Step 2: Interpret & Prioritize, but either one is equally acceptable as long as companies use the same indicator consistently across all management areas.

Companies may also refer to TNFD's [sector guidance for the fishing sector \(2025\)](#) for additional guidance relevant to this indicator.

Figure 7: Relationships between pressure categories, value chain assessment indicators, and SBTN targets. The figure below illustrates how pressure categories (used in Step 1a) are linked to the pressure, state of nature, and dependency indicators (used in Step 1b) and how these assessment indicators connect to the different target-setting methods (used in Step 3).

Indicator map



Identifying locations and activities not material for target setting

Any locations where pressures have been quantified as zero are currently considered not material for target setting, given the availability of current methods. This may happen in the following cases:

- **For locations material for freshwater use:** locations where activities are exclusively rainfed or withdrawals are assessed to be zero because all use is nonconsumptive. Certain activities may also meaningfully alter flow regimes without being withdrawal-based. These effects are not captured in withdrawal indicators and should not be interpreted as an absence of hydrological pressure.
- **For locations material for water pollution:** locations where there is no fertilizer or pesticide usage (e.g., due to organic agriculture or high-precision agriculture practices) and where there are no nutrient-rich wastewater effluents released to freshwater systems (such effluents may be found in industries processing agricultural products, such as the food, beverage, textiles, leather, and wood and paper industries).

In subsequent tasks and as part of any disclosures associated with progress on target setting, these locations are identified as “not material for target setting,” contributing to demonstrating company progress in line with the SBTN guidance.

Furthermore, for the purposes of the No Conversion target, companies may exclude from the scope of their target setting any production inputs that are legally defined as waste products under the relevant national legislation. Conversion associated with these production inputs can be determined to be “not material for target setting due to waste product regulations” and hence be excluded from the scope of the target.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 11.1

Pressure assessment by location:

Indicate, for each location with material activities, the environmental pressures at the location, the indicator used, the approach to assess it (primary or secondary data), and any relevant sources or methodological description used in the assessment (including tools used).

Req. 11.2

Pressure assessment coverage:

Complete this pressure assessment for 100% of the material direct operations activities, at least 90% of HIC content, and at least 90% of non-HIC content in procurement volumes (including upstream target boundary A and B).

Companies are not required to disclose the actual numerical values of their pressures or any spatial information on their assessment locations.

Recommendations

Rec. 11.1

Use of primary pressure data:

Use primary data wherever available to improve the accuracy of prioritization and facilitate their use as target baseline in Step 3.

Rec. 11.2

Prioritization of upstream exclusions:

When applying exclusions to the upstream assessment, prioritize excluding small and/or difficult-to-trace volumes with limited potential for meaningful impact reductions and progressively include these volumes in future assessments.

Task 12: Assess the state of nature in each location

Pressures of the same magnitude can have different significance depending on the ecological context. To understand the relative importance of similar pressures, companies gather data on the state of nature (SoN) in each location where they have activities. They use pressure-sensitive SoN (SoNP) indicators that indicate the potential urgency of alleviating environmental pressures in these locations.

These indicators are used in the SBTN methods to define priority target-setting locations in Step 2, and they are assessed only for locations in direct operations and upstream target boundary A.

Since upstream target boundary B locations do not have sufficient spatial granularity to implement the Step 3 methods, companies are not required to gather SoN data for these locations. Companies may, optionally, collect these indicators for locations in upstream target boundary B. This information can be helpful to prioritize traceability efforts, but is not required to proceed with the SBTN methods and is not part of the method validation requirements.

Furthermore, SoN data are not required for activities that will only be covered with company-wide targets, which are not subject to spatial prioritization i.e., the Land Footprint Reduction and Highly Hazardous Pesticide Cessation (for pesticide producers and traders) targets. Setting the No Conversion of Natural Ecosystems target is similarly not subject to spatial prioritization and not required to be included in Step 2, but an SoNP indicator is included for companies who want to inform their implementation priorities by spatial importance.

Companies should note that SoN indicators reflect cumulative impacts of all actors active on a particular landscape or seascape, including the company itself, as well as other companies, local communities, governments, and other organizations. The use of SoN indicators in the SBTN methods does not imply a specific responsibility to the company for the conditions in its locations, whether those be

negative or positive. However, SoN indicators help contextualize company pressures and contributions to the environment, and remain important for prioritizing target setting.

Assessing pressure-sensitive state of nature indicators

Companies will assess the following indicators depending on their materiality results:

LOCATIONS WITH MATERIAL ACTIVITIES FOR FRESHWATER QUANTITY TARGETS

- **Water availability:** Maximum value among availability layers compiled in [SBTN's unified water layer](#) for water availability. This indicator reflects the availability of freshwater resources in the basin, accounting for hydrological conditions and demand on available water resources. The unified water layer includes multiple datasets that account for water stress, water depletion, and the reductions in water withdrawals needed to align with ecological boundaries. Higher scores indicate locations where water availability is more constrained and where additional withdrawals may place greater pressure on freshwater systems. This [technical note](#) explains the methodology used to prepare the layers available in the online tool.

LOCATIONS WITH MATERIAL ACTIVITIES FOR FRESHWATER QUALITY (NUTRIENT) TARGETS

- **Water (nutrient) pollution:** Maximum value among the nutrient pollution layers compiled in [SBTN's unified water layer](#) for water pollution. This indicator reflects the pollution in freshwater systems associated with nitrogen and phosphorus concentrations. The unified water layer includes multiple datasets that account for coastal eutrophication potential, nitrate–nitrite concentration, and periphyton growth potential. Higher scores indicate locations where freshwater ecosystems may be more sensitive or at greater risk of nutrient-related impacts from additional nutrient discharges. This [technical note](#) explains the methodology used to prepare the layers available in the online tool.

LOCATIONS WITH MATERIAL ACTIVITIES FOR FRESHWATER QUALITY (PESTICIDE IMPACT REDUCTION) TARGETS

- **Risk of pesticide pollution:** Risk score (1–5) based on pesticide pollution risk at the Pfafstetter Level 6 basin level and the number of (pesticide) active ingredients posing a risk to the environment, as modeled by Tang et al. (2021) and available as indicator 4.6 in [WWF's Water Risk Filter \(2024\)](#). Higher scores indicate greater pesticide-related risks to freshwater ecosystems and therefore locations where additional pesticide impacts may be of greater ecological concern. The tool presents these scores at Pfafstetter Level 7. Companies may need to aggregate these results to match Pfafstetter Level 6, which is the spatial granularity intended for target setting.

LOCATIONS WITH MATERIAL ACTIVITIES FOR THE NO CONVERSION OF NATURAL ECOSYSTEMS TARGET

Optionally, companies may assess the following SoNP indicator:

- **Non-natural ecosystem cover:** Proportion (%) of non-natural ecosystems at the ecoregion level, as defined by the Natural Lands Mmap. The indicator reflects the extent to which natural ecosystems have been converted or replaced by human-modified land uses in the landscape beyond the production unit. Higher values indicate ecoregions with lower remaining natural ecosystem cover and therefore greater anthropogenic modification.

LOCATIONS WITH MATERIAL ACTIVITIES FOR THE WORKING LAND REGENERATION AND RESTORATION TARGETS

At least one of the following indicators, depending on which were used to assess the pressures for each production unit in Task 11.

- **Non-natural ecosystem cover:** Following the guidance for this indicator in the section for the No Conversion of Natural Ecosystems target.
- **Soil organic carbon (SOC) average level** in the ecoregion. SOC reflects the amount of carbon stored in organic matter in the soil and is an important indicator of soil condition, fertility, structure, water retention, and biological activity. Lower SOC levels indicate a more degraded state of the soil.

- **Soil erosion average rate** in the ecoregion. Soil erosion removes topsoil, organic matter, and nutrients and can impair soil structure. Higher erosion rates indicate greater soil degradation and poorer ecological conditions.
- **Terrestrial acidification average level** in the ecoregion. Acidification results from the deposition of nitrogen- and sulfur-containing compounds and can alter soil chemistry and nutrient availability and affect the vegetation. Higher acidification levels indicate greater degradation of the soil.

For the purposes of the SBTN methods, ecoregions follow the definition by [Dinerstein et al. \(2017\)](#). Companies should obtain the average value of the relevant soil quality indicator at the ecoregion level, using the LEAFs available in the Step 3 Land methods.

Companies should note that, unlike the equivalent pressure indicators used in Task 11, which measure conditions at the level of the production unit, the Task 12 SoN indicators measure the same conditions across the surrounding ecoregion.

LOCATIONS WITH MATERIAL ACTIVITIES FOR AVOID AND REDUCE OVEREXPLOITATION, PROTECT STRUCTURAL HABITATS, AND REDUCE RISKS TO ETP MARINE WILDLIFE POPULATIONS TARGETS

- **Wild capture stock health**, as defined in territorial seas by the [Ocean Health Index \(OHI\) Score](#), Food Provisioning, Wild-capture Fisheries, or, in the high seas, by FAO's [State of World Fisheries and Aquaculture \(SOFIA\)](#). The OHI measures the amount of sustainable wild-capture seafood harvested globally at sustainable levels (0–100 score). The SOFIA defines percentages of biologically sustainable and unsustainable fishery stocks per major fishing area. Lower OHI scores or higher proportions of biologically unsustainable stocks indicate areas where fishing pressure is associated with poorer stock conditions. These indicators provide information on the general state of fishing stocks in the area (rather than stock-specific information). Companies may use alternative databases if they are government- or academia-backed and have been recently developed.

LOCATIONS WITH MATERIAL ACTIVITIES FOR PROTECT STRUCTURAL HABITATS AND REDUCE RISKS TO ETP MARINE WILDLIFE POPULATIONS (BUT NOT FOR AVOID AND REDUCE OVEREXPLOITATION TARGETS)

- **Proportion of non-natural marine habitats** (% of surface area) in the marine management area where the production units are located. Natural areas may include seagrass meadows, coral reefs, mangroves, or other coastal or marine habitats available in global habitat datasets. The indicator reflects the loss of natural habitats due to anthropogenic action. These habitats provide important ecosystem functions and services for marine species, e.g., acting as shelter, nurseries, or feeding grounds. Higher proportions of non-natural areas represent greater habitat loss and potentially greater vulnerability of marine ecosystems. SBTN recommends that companies use the following datasets: in territorial waters, the Biodiversity Habitat Score of the [Ocean Health Index](#), or another locally relevant dataset; for international waters, companies may forgo the SoN assessment if no adequate data are available. Companies may use alternative databases if they are government- or academia-backed, have been recently developed, and include seabed habitats.

USE OF ADDITIONAL AND ALTERNATIVE DATABASES IN THE ASSESSMENT

The databases listed above are recommended as generally appropriate for applying the SBTN methods. However, companies that determine that a different dataset is more relevant for capturing the state of nature in their particular locations may use alternative datasets. Companies may also gather additional SoN indicators to increase the robustness of their assessment.

The [SBTN Tool Library](#) provides access to numerous datasets and tools that may be considered for these purposes and to SBTN's Data and Tools Criteria. Companies need to select datasets that are relevant for the focus realm and the pressures they are assessing in the location. These indicators must be sensitive to the pressures generated in the location by the company's activities. In other words, they must

indicate the effects of the pressures that degrade environmental conditions. Companies may also use tools not included in the SBTN Tool Library, provided they supply justification indicating their appropriateness and ensure that they meet SBTN's data and tool criteria, available through the [SBTN Tool Library](#).

Alternative datasets may be used to complement or contextualize ecological SoN indicators. Datasets primarily designed to reflect operational water availability or infrastructure performance may support interpretation and prioritization, but do not replace pressure-sensitive ecological SoN indicators used for ranking.

In cases where these databases have geographic data gaps relevant for the assessment, companies may also consider approximate locations (e.g., similar adjacent locations or coarser ones) to complete the assessment.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 12.1

Pressure-sensitive state of nature assessment:

Provide the pressure-sensitive SoN indicators defined here for all their material locations in direct operations and upstream target boundary A, using the recommended datasets or others that meet SBTN's data and tool criteria, available through the SBTN Tool Library.

No information related to this task needs to be disclosed to make claims.

Recommendations

Rec. 12.1

Selection of pressure-sensitive state of nature datasets:

Use the recommended SoNP datasets where appropriate, while using additional or alternative datasets when these are more relevant to represent the ecological conditions in the locations assessed.

Task 13: Assess the state of nature for biodiversity in each location

While the pressure-sensitive SoN indicators (SoNP) gathered in Task 12 indicate the locations with the greatest potential for change as a result of reducing pressures, the state of nature indicators for biodiversity (SoNB) gathered in Task 13 provide a measure of the intrinsic ecological importance, vulnerability, and risk of irreversible losses in a location.

Together, SoNP and SoNB indicators are used in Step 2 to define priority target-setting locations across the direct operations and upstream target boundary A.

Since upstream target boundary B locations do not currently have sufficient spatial granularity to implement the Step 3 methods, companies are not required to gather SoN data for these locations. As in Task 12, companies may, optionally, collect these indicators for locations in upstream target boundary B. This information can be helpful to prioritize traceability efforts, but is not required to proceed to setting targets and is not part of the method validation process.

Furthermore, SoN data are not required for activities that will only be covered with company-wide targets, which are not subject to spatial prioritization i.e., the Land Footprint Reduction and Highly Hazardous Pesticide Cessation (for pesticide producers and traders) targets. Setting the No Conversion of Natural Ecosystems target is similarly not subject to spatial prioritization and not required to be included in Step 2, but an SoNP indicator is included for companies that want to inform their implementation priorities by spatial importance.

Selecting Biodiversity state of Nature indicators

The selection of biodiversity indicators depends on the targets being set in each specific location. The following indicators are recommended, but companies may use alternative metrics that fit within these broader categories.

Companies must assess at least one species-level and one ecosystem-level indicator for each location.

There are only a few global marine biodiversity databases fit for use by corporate end users. To accommodate this, companies are allowed to proceed using only a single marine biodiversity dataset (e.g., marineSTAR). SBTN recommends that companies use the same SoN indicators at the species and ecosystems levels across all their locations within a given realm. Where this is not possible, different metrics may be used to represent the same dimensions of biodiversity. In each case, companies should note which dataset was used for the calculation as this information will be necessary in Step 2 to conduct prioritization.

The organization of SoNB indicators in this guidance integrates the State of Nature Indicators and Metrics Framework developed by the [Nature Positive Initiative \(NPI\)](#). This collaborative initiative aims to develop a common approach to measure progress toward nature-positive outcomes based on species- and ecosystem-level SoNB indicators. While the NPI state of nature metrics are designed for assessing outcomes, they have additional value in supporting the assessment (Step 1) and prioritization (Step 2) of science-based targets. Therefore, the SoNB indicators used in Task 13, and some of the SoNP indicators used in Task 12, correspond to the four State of Nature Framework indicators: ecosystem extent, ecosystem condition, species extinction risk, and species populations.

The guidance below is intended to support companies in completing requirements associated with their assessment and prioritization. The monitoring data used to support analysis of the species population metric

is not readily available for all species. Companies may include these data in their analysis but the indicator is not required to proceed to target-setting.

Biodiversity indicators can be measured at different scales including site and landscape levels. At this stage of the SBTN methods, where these indicators are used to inform spatial prioritization based on the conditions of the broader landscape or seascape (in contrast to pressure indicators that assess site-level impacts) the secondary category is used. This means that the indicators would be applied for the basin, ecoregion or marine management area, depending on the realm being assessed. In most cases, the data used for prioritization will correspond to the preparatory granularity level described in the [NPI's Initial Measurement Guidance: State of Nature Metrics](#).

ECOSYSTEM EXTENT

- **Area, losses, and gains in the extent of natural ecosystems (including semi-natural) by type (ha, %).** Companies may prioritize either areas with a high proportion of remaining natural ecosystems, where the objective is to maintain and safeguard existing ecosystem extent, or areas with a low proportion of remaining natural ecosystems, where the objective is to prioritize areas with greater ecosystem conversion for restoration or recovery. Companies should select the approach that is consistent with the intended target outcome. For this indicator, the following databases are recommended for the freshwater, land, and ocean realms:
 - **Freshwater:** [Global Lakes and Wetlands Database \(GLWD\)](#) and [SBTN's Natural Lands Map](#) (applicable for certain systems, such as wetlands).
 - **Land:** [SBTN's Natural Lands Map](#) (where it has not already served as an SoNP indicator).
 - **Ocean:** Habitat coverage from [Oceans+ Habitats](#).

ECOSYSTEM CONDITION

- **Values and change in structural and functional connectivity between natural ecosystems.** The following indicators are recommended for the freshwater, land, and ocean realms:
 - **Freshwater:** Freshwater ecosystem fragmentation from [WWF's Water Risk Filter \(2024\)](#).
 - **Land:** Ecosystem intactness or integrity, as defined by the Ecosystem Integrity Index ([Hill et al. 2022](#)), or Ecosystem Condition, as defined in the [Biodiversity Risk Filter \(2024\)](#) (indicator 2.4, ecosystem condition), at the ecoregion level.
 - **Ocean:** In territorial waters, companies are suggested to use the Biodiversity Habitat Score of the [Ocean Health Index \(OHI\)](#).

SPECIES EXTINCTION RISK

- **Species extinction risk measurement** showing the contribution of the landscape or seascape to global extinction risk. The recommended indicator is STAR, currently available through the [Integrated Biodiversity Assessment Tool \(IBAT\)](#) for terrestrial and marine species and expected to be available for freshwater species in the near future.

SPECIES POPULATIONS

The State of Nature Indicators and Metrics Framework uses a fourth core dimension of state of nature—species populations—which is currently not required in the SBTN Step 1 methods due to data limitations. Companies with species population data may use it as a complementary or alternative species-level SoNB indicator.

SBTN encourages companies to focus on priority species, such as those identified in Task 9 of Step 1 (threatened and CITES-listed species in the company's operations and value chain) as well as other threatened or endemic species, indicator or keystone species, or those relevant for ecosystem services. Suggested metrics may include the number and proportion of priority species with estimated populations that are 1) declining, 2) slowing in decline, 3) stable, and 4) increasing.

OTHER SPECIES-LEVEL INDICATORS

- If they encounter issues with data access or availability, SBTN recommends that companies consider alternative, species-level SoNB indicators such as:
 - Freshwater: Freshwater fish rarity-weighted richness (IUCN, 2025) or amphibian rarity-weighted richness (IUCN, 2025), available on the [Integrated Biodiversity Assessment Tool \(IBAT\)](#), where data for freshwater fish is not available. Alternatively, companies may refer to the freshwater endemism or freshwater biodiversity richness layers in [WWF's Water Risk Filter \(2024\)](#) where rarity-weighted data are not available.
 - Land: Range Rarity from [WWF's Biodiversity Risk Filter \(2024\)](#).
 - Ocean: Biodiversity (species composition) from [Oceans+ Habitats](#).

COMPLEMENTARY ASSESSMENT OF PROXIMITY-BASED INDICATORS

Companies may, additionally, assess the distance from their production units to areas of biodiversity importance. Unlike the indicators above, which characterize the condition or significance of the location itself, indicators such as the distance to Key Biodiversity Areas, Protected Areas, Ramsar Wetlands, or Other Effective Area-based Conservation Measures (OECMs) assess the proximity to important or sensitive areas.

This may be relevant for companies operating multiple production units in the same location, where the condition or significance indicators above have little variability across units. Companies may combine indicators in this category by assessing the distance from each unit to the nearest of several types of areas of biodiversity importance. However, companies must use the same approach across all production units in scope of their assessment.

USE OF ADDITIONAL AND ALTERNATIVE DATABASES IN THE ASSESSMENT

As in Task 12, the list of SoNB indicators provided here is not prescriptive. The indicators listed in the methods are recommended given that they are generally appropriate for applying the methods, but companies may determine to use others better suited for their activities or locations, though they may be asked to justify their choice of metric or dataset in the validation process. Refer to Task 12 for additional information and guidance.

SBTN recommends that companies consult the recent foundational paper on [biodiversity action via science-based targets for nature](#) for more information on the use of biodiversity data in the SBTN methods and how science-based targets for nature enable action for biodiversity.

Companies may refer to TNFD's core global disclosure metrics C5.0, C5.1, C5.2, and additional metric A5.0 on **ecosystem extent, ecosystem condition, species extinction risk, and species population size**, respectively, in the [TNFD recommendations \(2026\)](#), for additional guidance relevant to SoNB indicators.

It may also be helpful to reference the NPI Initial Measurement Guidance for State of Nature Metrics, ALIGN Project, and UNSEEA Ecosystem Accounting for more information, including measurement specifications, example metrics and calculation approaches.

While this portion of the SBTN methods focuses on data collection to support target prioritization decisions, the guidance in these accompanying resources may be used to support site-specific measurement of SoN indicators and ongoing monitoring. Biodiversity safeguards and other guidance on biodiversity are presented in the Step 4: Act technical guidance.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 13.1

Biodiversity state of nature assessment:

Provide the state of biodiversity indicators, at species and ecosystem level, using the indicators and datasets defined here or other alternative indicators that fulfill SBTN's data and tool criteria, available through the SBTN Tool Library, for all their material locations in direct operations and upstream target boundary A, noting which datasets were used in each case. Optionally, provide the distance of each production unit to areas of biodiversity importance.

No information related to this task needs to be disclosed to make claims.

Recommendations

Rec. 13.1

Consistency of biodiversity indicators across locations:

Use consistent species- and ecosystem-level biodiversity indicators across locations.

Rec. 13.2

Use of additional biodiversity indicators:

Complement the required SoNB assessment with proximity to areas of biodiversity importance and/or additional biodiversity indicators.

Task 14: Assessment of dependencies

SBTN is an impact-first framework, but understanding business dependencies can help companies identify locations where ecosystem degradation may pose higher operational or financial risks and may inform target-setting prioritization. Locations ranked high as target-setting priorities and where companies have high business dependencies, may also provide strategic opportunities to reduce risk exposure through science-based targets for nature.

For direct operations and upstream volumes in target boundary A, SBTN requires that companies integrate dependencies into their Step 1b assessment and carry this through to inform the prioritization of sites. Companies must assess at least one relevant ecosystem

service dependency for each location, but have flexibility to select which dependencies to assess. SBTN recommends that companies select those that are ecologically or operationally related to the activities, locations, and pressures they are addressing through science-based targets. Where relevant, SBTN recommends that companies consider dependencies associated with broader ecological interactions across realms and pressure categories. For example, in certain contexts, action on Land targets may address risks associated with water-related ecosystem dependencies.

The following table provides a list of non-prescriptive and non-exhaustive examples of ecosystem service dependencies that are commonly relevant for each pressure category and associated science-based target. Companies may assess these or other dependencies relevant for their activities.

Table 7: Ecosystem service dependencies associated with material pressures and SBTN targets.

Pressure	Target	Ecosystem Service Dependency
Volume of water use	Freshwater Quantity	Water supply, water flow regulation services
Emissions of nutrients and toxic pollutants to water and soils	Freshwater Quality (nutrients and pesticides); Landscape	Water purification, soil quality regulation services
Land use and land use change	No Conversion; Working Land Regeneration and Restoration; Landscape Engagement	Biomass provisioning services (agricultural companies), soil quality regulation, soil and sediment retention services, pollination services
Other biotic resource extraction—fish	Avoid and Reduce Overexploitation; Reduce Risk to Endangered, Threatened, and Protected Marine Wildlife	Biomass provisioning services
Area of seabed use	Protect Structural Habitats	Nursery population and habitat maintenance services, water purification and solid waste remediation

Companies should identify their most impactful activity in each location based on their Step 1b pressure assessment data. Tools like ENCORE—which is also used in SBTN’s Materiality Screening Tool for impacts—and the WWF Risk filter can also be used to provide an initial estimate of dependencies in each location in their target boundary.

The scores provide an overview of the materiality of potential dependencies based on global sector average data in two dimensions: the loss of functionality in the business operation if the ecosystem service is lost or disrupted, and the significance of the financial loss due to this loss of functionality. This means that variations in scores between sites will reflect activities at that location, not differences in potential ecosystem services between locations.

Companies using ENCORE or other tools that provide dependency values based on the type of economic activity, and those with a limited number of activities in their operations, will find limited variability in the results of the assessment. These results will meet the validation requirements and will still be helpful to inform company decision-making.

Alternatively, companies may evaluate dependencies using a more spatially explicit approach or datasets that more closely reflect their sector/industry data. Companies looking to use this approach may refer to models, datasets, and methodologies such as Critical Natural Assets datasets and InVEST models, Nature Risk Profile methodology, Natural Capital Protocol, and Fire/Flood/Drought Risk models. The Nature Risk Profile methodology includes further information on calculating dependencies at the location of operations or sourcing using spatial data. This allows companies to adjust the relevance of an ecosystem service based on the potential benefit in a location relevant to target setting. For example, flood regulation is especially critical in flood-prone regions but not in areas without flood risk, even when sector-level scores indicate materiality for that ecosystem service.

Finally, TNFD’s guidance on the identification and assessment of nature-related issues, the [LEAP approach \(v2.0, 2026\)](#)—specifically the sections on assessment of dependencies in the locate and evaluate phases—includes further guidance to support companies in conducting a dependency assessment for their activities.

Validation and claims requirements

To have this task validated, SBTN requires that companies proceed as follows:

Req. 14.1

Dependency assessment:

Provide the name and values of ecosystem service dependencies selected for assessment at each direct operation and upstream target boundary A location, along with the name of the tools used for the assessment.

No information related to this task needs to be disclosed to make claims.

Recommendations

Rec. 14.1

Selection of relevant dependencies:

Select ecosystem service dependencies that are ecologically or operationally relevant to the activities, locations, and pressures that will be addressed through science-based targets.

Rec. 14.2

Spatially explicit dependency assessment:

Where feasible, use spatially explicit dependency data to complement sector-level assessments and better distinguish the relevance of dependencies among locations.



“After completing Step 1: Assess, companies may submit their results for validation through the Accountability Accelerator or continue directly to Step 2: Interpret & Prioritize.”



SCIENCE BASED
TARGETS NETWORK