TECHNICAL GUIDANCE

STEP
2
PRIORITIZE

SCIENCE BASED TARGETS NETWORK
GLOBAL COMMONS ALLIANCE

Credits & Acknowledgments

Lead authors
Varsha Vijay, SBTN and Samantha McCraine, SBTN

Editors
Arabella Stickels, SBTN; Erin Billman, SBTN; Erin O'Grady, SBTN; Jess McGlyn, SBTN; Oscar Sabag, SBTN; Hubert Remillard, BCG

Graphic Design
Azote; Oscar Sabag, SBTN

Document Design
Azote; Samantha McCraine, SBTN; Lucyann Murray, BCG

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STEP 1 & STEP 2 WORKING GROUP

Amelia Meyer, WWF
Brian Shaw, Metabolic
Clementine Fournier, UNEP-WCMC
Daniela Palma Munguia, Metabolic
Dave McLaughlin, Conservation International
Malcolm Starkey, The Biodiversity Consultancy
Marta Santamaria, Capitals Coalition
Martha Stevenson, WWF
Martijn Kamps, Metabolic
Michele Thieme, WWF
Rich Waite, WRI
Sharon Brooks, UNEP-WCMC
Simon Gilet, Quantis
Sonya Bhonsle, CDP

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SBTN EXPERT REVIEW PANEL

Adrian Ward, Accounting for Nature
Bowen Zhang, Chinese Foundation SEE
Gail Whiteman, University of Exeter
Karl Burkart, One Earth
Pablo Marquet, Pontificia Universidad Católica de Chile

SBTN PRODUCT DEVELOPMENT COUNCIL

Margot Wood, Conservation International
Martha Stevenson, WWF
Rich Waite, WRI
Sharon Brooks, UNEP-WCMC
Thomas Maddox, CDP

SBTN CORPORATE ENGAGEMENT PROGRAM

SBTN PARTNER COMMUNITY

SBTN NETWORK COUNCIL

PUBLIC CONSULTATION PARTICIPANTS

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| 1 Assess | 2 Interpret & Prioritize | 3 Measure, Set & Disclose | 4 Act | 5 Track |

The five-step process for setting science-based targets for nature.

Letter from SBTN's Technical Director

By taking enough of the right actions, in the right places, and at the right time through science-based targets, companies can contribute towards an environmentally safe and socially just future.

Dear Reader,

The first release of science-based targets for nature marks a critical step forward for the Science Based Targets Network (SBTN) and for corporate action on the mounting environmental and social crises associated with nature and biodiversity loss.

SBTN is a unique collaboration of over 80 leading global non-profits and mission-driven organizations, working together to co-develop and test scientifically rigorous and actionable methodologies for setting science-based targets (SBTs). To complement existing science-based targets for climate through the Science Based Targets initiative, SBTN is developing science-based targets for nature.

With the release of the first science-based targets for nature in 2023, SBTN is making available a robust and integrated methodology that offers companies the methods, guidance and tools they need to set validatable targets to directly address their pressures on freshwater, land and biodiversity today. Future releases of methods from SBTN will increase coverage of corporate impacts.

SBTN is, by design, more detailed and prescriptive than other frameworks in the sustainability space, providing thorough step-by-step guidance at each stage of the process. The purpose of our guidance is to empower companies to deploy a clear, analytical approach, tested and vetted by scientific experts, for assessing and addressing their environmental impacts. For this reason, the methodology builds on existing related frameworks, data and tools to increase efficiency for companies with more sustainability experience. It also aims to create a pathway for companies who are earlier on their sustainability journey, by providing tools, data and models to facilitate target-setting.

While applying these methods, it is important to note that SBTN methods will improve and increase in scope with advancements in science and technology and through the application of our methods by companies. Subsequent releases will include greater coverage of biodiversity, marine impacts, and additional sources of freshwater pollution, to name a few areas of current development. Additional planned content includes guidance on Step 4: Act and Step 5: Track, with validatable metrics associated with the Stakeholder Engagement Guidance.

With this novel release of science-based targets for nature, we aim to ensure that companies take measurable steps toward assessing, mitigating, and managing their impacts on nature and society. By taking enough of the right actions, in the right places, and at the right time through science-based targets, companies can contribute towards an environmentally safe and socially just future.

Thank you for your interest and support for our work.

Varsha Vijay, Ph.D.
Technical Director
Science Based Targets Network

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By taking enough of the right actions, in the right places, and at the right time through science-based targets, companies can contribute towards an environmentally safe and socially just future.

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PLEASE NOTE THE FOLLOWING CONVENTIONS USED IN THIS DOCUMENT:
- Numbers in brackets, for example (1), indicate citations which can be retrieved in the bibliography
- Superscript numbers, for example ([1]), indicate explanatory notes, which can be found as footnotes in the Method Scope and as endnotes for the rest of the Guidance

Introduction

Within the process of setting science-based targets for nature, Step 2 enables companies to identify the locations where action is needed most urgently for nature and people.

To use the Step 2: Interpret & Prioritize method, companies must have applied the method for Step 1: Assess, following the stated requirements for completion in that guidance document (1). In Step 1, companies screen their portfolio of economic activities for materiality (SBTN Step 1a: Materiality screening), and then estimate their contributions toward key environmental issues through an assessment of pressures and the states and impacts associated with each category of material economic activity (SBTN Step 1b: Value chain assessment).

In this next phase of target-setting, Step 2: Interpret & Prioritize, companies use the information from Step 1 on all parts of the value chain and pressures identified as material to determine which locations and economic activities to include within their "boundaries" for each target, and where to act first to effectively mitigate their most significant negative impacts on nature and increase their potential for positive impacts. The high-level overview of the Step 2 method is provided in the next section.

Compliance with the Step 1 requirements for the materiality screening and value chain assessment will enable companies to apply the *required* portions of the Step 2 methods without collecting additional information. For the *optional* portions of this step, companies may choose to collect additional information reflecting societal materiality and feasibility or risk-based considerations to inform their prioritization of locations before applying target-setting methods.

The analytical approach in this step includes four sub-steps, which are summarized in the table below.
- Step 2a: Determine Target Boundaries
- Step 2b: Interpret & Rank
- Step 2c: Prioritize
- Step 2d. Evaluate Feasibility & Strategic Interest

Target boundaries, as defined by SBTN, are the spatial extent of companies' pressure footprints managed through (science-based) targets. To make claims about setting SBTs for nature, companies *must* define the target boundary for each pressure identified as environmentally material at the end of Step 1 (Step 2a: Determine Target Boundaries). When determining the target boundaries for target-setting in the upstream of a company's value chain, the pressure and state of nature data may be less precise, and associated with estimates derived at a coarser than national level.

This can happen because of uncertainty or variability in sourcing information (e.g., only the commodity is known), purchasing through spot markets or aggregators, or sourced volumes of highly-embedded or transformed commodities. In these cases, the SBTN methods will specify pathways for transparency and traceability as well as alternative pathways for action. However, targets cannot be set without spatial data at the scale required by the Step 3 methods for targets on freshwater and land. The method for determining target boundaries is covered in Section 2 of this document.

Companies *must* also use a **standardized ranking** process to analyze the data on locations within each target boundary to assess the relative urgency of action for nature (Step 2b: Interpret & Rank). The standardized ranking process will enable companies to generate a ranking of both their pressure data (combining each pressure, P, with the pressure-linked state indicator, SoN_P) and a ranking of their biodiversity state data (SoN_B). Together, the definition of target boundaries for all material pressures and economic activities and the prioritization of locations within these are required elements of the Step 2 method. The ranking method is covered in Section 3 of this document.

After defining their target boundaries and ranking locations based on urgency, companies are *recommended* to complement the ranking of sites or regions within their target boundary with the use of an additional prioritization step to determine their first phase (i.e. cutoff) for target-setting (Step 2c: Prioritize). The use of these additional prioritization methods (beyond the ranking) must be consistent with the requirements of the Step 3 methods. Companies who have only identified land use and land use change as material in Step 1 and are setting No Conversion or Land Footprint Reduction targets can skip this portion of Step 2 and move to Step 3, where they will incorporate the full scope of their target boundaries for direct operations and upstream for land use and natural ecosystem conversion (land use change) in their targets. Companies applying these targets should still incorporate the ranking from Step 2b. If companies choose not to use the prioritization approaches detailed in Step 2c to inform a cutoff for their remaining target boundaries for land and freshwater targets, they will be *required* to address 100% of their target boundaries using the strictest interpretation of the target-setting guidance for Step 3: Land (Landscape Engagement) and the Step 3: Freshwater (Water Quantity and Water Quality). The prioritization methods are covered in Section 4 of this document.

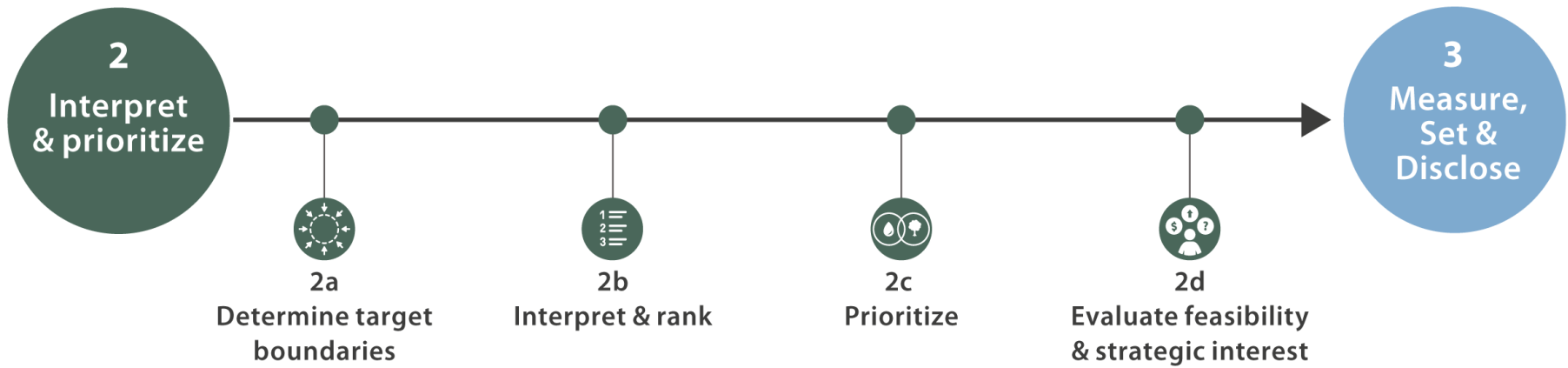Figure 1—Overview of Step 2. The method for Step 2 consists of four sub-steps. In the first two sub-steps, companies use information gathered in Step 1 to determine their target boundaries and then rank locations within these. In the second two sub-steps, companies introduce new information on local stakeholder needs, feasibility, risks and opportunities, and corporate strategy to decide where to set targets first.

Companies are recommended to complete the use of this method with Step 2d: Evaluate Feasibility. In this final optional step, they incorporate additional social and human rights considerations and review the feasibility of science-based targets and strategic importance for the business of locations flagged as significant in the earlier rounds of analysis. The evaluation method is covered in Section 5 of this document.

As an outcome of Step 2: Interpret & Prioritize, companies will know the relative importance of different pressures and locations, and may also know where different types of action (e.g., avoidance, reduction, and restoration)[2] are most needed. For methodologies where this is applicable, they will also know which target-setting approaches to apply within the target boundary of a given pressure. This information can be critical for companies' overarching target-setting strategies and will enable companies to engage with the appropriate methods available for taking baseline measurements and setting targets in Step 3.[3]

In section 1.2, Table 2 provides an overview of the data outputs from Step 2 needed in order to engage with the Step 3 target-setting methods. Where needed, additional details on data requirements for each step and value chain category are provided within the methodology for each step.

Note that data needed for each step builds on what is collected and used for the previous step, so companies _must_ collect the data required for Step 1 before proceeding to Step 2. All variables and indicators referenced in this method were introduced in Step 1. A summary of these is provided for readers in Appendix I.

Table 1—Overview of requirements and recommendations for Step 2.

Method Section	Description	SBTN guidance for companies
Step 2a: Determine Target Boundaries	Define target boundaries based on quality (precision and accuracy) of data available, for both upstream and direct operations	♦ _Required_ for all upstream and direct operations value chain segments and boundaries
Step 2b: Interpret & Rank	Rank locations within target boundaries using environmental and societal materiality	♦ _Required_ for direct operations and all upstream activities falling in a 'target boundary A'*
Step 2c: Prioritize	Prioritize among locations within target boundaries, using additional criteria for urgency of action (cutoffs) and co-benefits	♦ _Required_ for all upstream activities falling in a 'target boundary B'* ◊ _Recommended_ for direct operations and upstream activities in a target boundary A*
Step 2d: Evaluate Feasibility & Strategic Interest	Incorporate additional social and human rights considerations and evaluate feasibility of action within target boundaries.	◊ _Recommended_ for direct operations and all upstream activities

*The different types of boundaries are defined in section 2.1.1.

**Companies setting No Conversion and Land Footprint targets must include their entire direct operations and upstream target boundary A in their targets without further prioritization
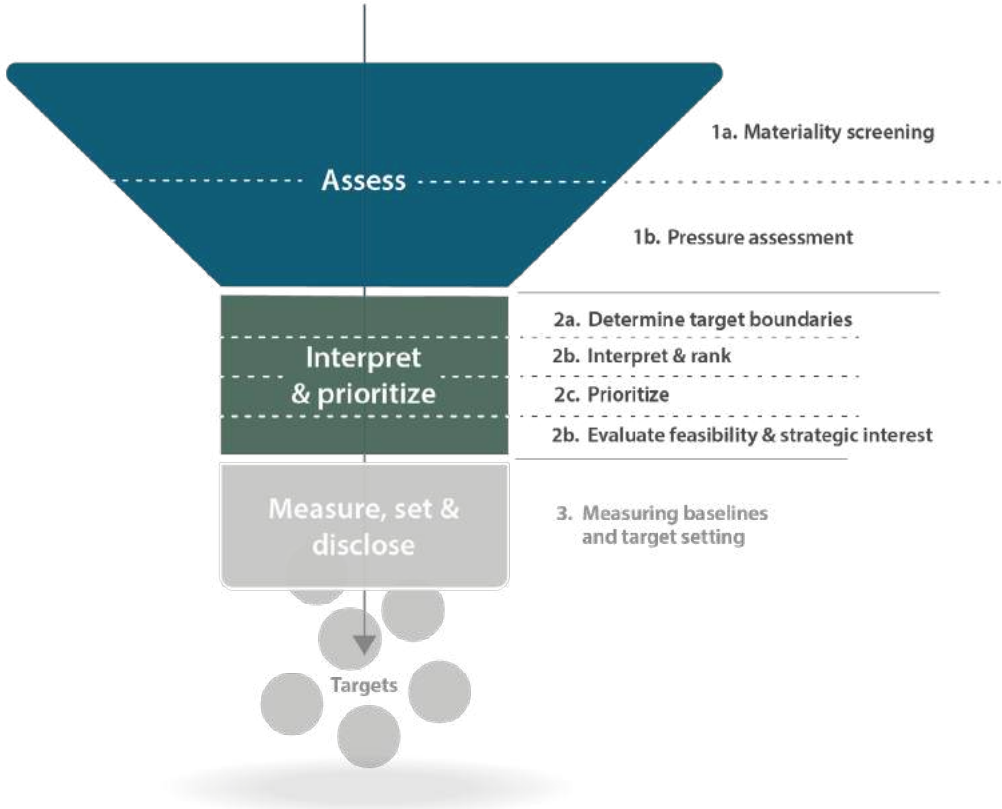
Figure 2—Narrowing scope during target setting. In Step 2, companies refine the scope of the target-setting process further as they define target boundaries for all material pressure categories. Ranking, prioritizing and further evaluating the sites within each boundary will inform companies' strategies for target setting, and ensure they begin applying Step 3 methods where it is most needed for nature and where their company-specific pressures (and opportunities to reduce and minimize harm to nature and biodiversity) are greatest.

Box 1—Note for readers familiar with the Initial Guidance.

Step 2a: Determine Target Boundaries and Step 2b: Interpret & Rank focus on two of the seven factors for interpretation and prioritization introduced in the Initial Guidance (2). These include factor *A: Contribution of different locations, commodities, suppliers to total impact of the company* and factor *B: State of nature in value chain locations.* These two factors are emphasized given the ease of accessing information relevant for the assessment in Step 1 and evaluation in Step 2, and the weight of recommendations from experts suggesting these to be the most significant factors from an environmental and societal materiality perspective.

Additional factors from the Initial Guidance are included in Step 2d: Evaluate Feasibility. Using the numeration from the Initial Guidance, these include factors *D: Needs and capacity of local stakeholders, E: Company-level stakeholders, F: Needs and capacity of value chain partners and/or subsidiaries, and G: Policy environment.*

The only factor for prioritization introduced in the Initial Guidance that is not included in this revision of the Step 2 method is factor *C: Relative contribution of the company to the state of nature, compared with other stakeholders.* This factor is addressed in Step 3 baselining and target-setting methods.

REQUIREMENTS AND RECOMMENDATIONS
–STEP 2 OVERVIEW

♦ **Requirement 1. Completion of Step 1 before Step 2.**
Before using the Step 2: Prioritize method, companies *must* first use the Step 1: Assess methods or otherwise meet the stated requirements and SBTN tool and data criteria.

♦ **Requirement 2. Setting targets is required for material pressures if companies seek validation.**
Companies setting science-based targets for nature must set and validate targets on each of the pressures that are material for their business and for which SBTN currently has methods to set targets (Step 3) if they are seeking validation of their work.

♦ **Requirement 3. Definition of target boundaries is required for each material pressure.**
Before setting and validating their science-based targets for nature, companies *must* submit details on their target boundary that they intend to manage using SBTN methods (defined per-pressure and value chain segment within the Step 2 methodology below). Companies will eventually be responsible for setting science-based targets for nature throughout their target boundaries.

1.2 Data requirements

Table 2—Overview of data requirements for Step 2.

STEP 2: INTERPRET & PRIORITIZE					
		Step 2a: Determine target boundaries	**Step 2b: Interpret and rank**	**Step 2c: Prioritize**	**Step 2d: Evaluate feasibility & strategic interest**
	Objective of the method for this step	Determine where to act first for nature, based on information about pressures and the state of nature.	Establish significance values for each location within target boundaries.	Employ cutoffs for the location ranking to determine the first round of target setting, consistent with Step 3 requirements.	Complement the earlier prioritization using environmental criteria with including additional societal considerations as well as feasibility and financial materiality.
Direct operations	**Data needs**	Requirements ♦ Data collected during Step 1: pressure data for all activities assessed, data on State of Nature (pressure-sensitive and biodiversity), and the locations of all sites	Requirements ♦ Data collected during Step 1: pressure data for all activities assessed, data on State of Nature (pressure-sensitive and biodiversity), and the locations of all sites	Requirements ♦ Data from Step 2a-2b ♦ Documentation to explain time-bound plan to increase target coverage	Requirements ♦ Information to justify plans for target setting (in line with or deviating from SBTN guidance), including evidence of feasibility and barriers to implementation Recommendations ◊ Data on the rights and needs of local stakeholders (Indigenous Peoples and other communities) affected by the companies' operations
	Associated with what parts of the company's data?	Building from Step 1, operational sites (paired with activities and commodities) and their geographic locations.			
	Inputs and outputs	Input from companies: Long list of pressure and state of nature (SoN) estimates per operational site, output from Step 1 Output from the method: Prioritized list of operational site-location pairs			
Upstream	**Data needs**	Requirements ♦ Data collected during Step 1: data on pressures, states, and locations of highest impact activities in production chain of high impact commodities ♦ Evidence to justify ability to gather precise spatial data	Requirements ♦ Data collected during Step 1: data on pressures, states, and locations of highest impact activities in production chain of high impact commodities ♦ Evidence to justify ability to gather precise spatial data	Requirements ♦ Data from Step 2a-2b ♦ Documentation to explain time-bound plan to increase target coverage	Requirements ♦ Information to justify plans for target setting (in line with or deviating from SBTN guidance), including evidence of feasibility and barriers to implementation Recommendations ◊ Data on the rights and needs of local stakeholders (Indigenous Peoples and other communities) affected by the companies' operations ◊ Strategic information needed to build out a plan to increase transparency and traceability to enable place-based target setting in Step 3 for high priority locations
	Associated with what parts of the company's data?	Upstream activities and sourced commodities (paired with locations)			
	Inputs and outputs	Input from companies: Long list of pressure and SoN estimates per procurement or activity, output from Step 1 Output from the method: List of prioritized activity/commodity and location-pairs			

Step 2a:
Determine target boundaries

Once companies have defined their target boundaries, they will have the basic knowledge of which targets need to be set where.

2.1 Target boundary overview

As stated in the Introduction to this guidance, companies must apply the Step 2 methods for each *required* material pressure identified in Step 1 for each value chain component included.[4] By the end of this step, companies will have defined as many target boundaries as they have pressures *requiring* assessment, for each value chain component.[5]

In the SBTN methodology, target boundaries are the spatial extent of companies' pressure footprints managed through science-based targets.[6] To begin defining target boundaries, within the SBTN method, companies *must* have all relevant **pressure** estimates and **state of nature (SoN)**[7] scores per site location in their **direct operations**, and per good or service assessed for their **upstream** activities.[8,9] The method for Step 2 is written based on the assumption that company data collected during Step 1b will have been organized by activity–location pairs for direct operations and activity/ service–location or commodity/good–location pairs for upstream.

Target boundaries will define the spatial extent of companies' targets, implementation, and monitoring efforts (Steps 3, 4, and 5). Companies using SBTN methods to set SBTs for nature will be *required* to address their impacts across pressure-specific target boundaries over time in order to make a claim on the completion

of a given target (e.g. Freshwater Quantity). The time needed to set and validate targets will vary across locations and between value chain segments (direct operations and upstream). In some cases, full coverage of the target boundary is required within the first round of target setting, whereas in other cases, target setting and achievement may be sequenced according to the rules set out within this document (the Step 2 prioritization).[10]

However, particularly for companies' upstream activities, they may not have to set targets *throughout the full spatial extent* associated with their target boundary if they have used less precise and resolved spatial information than is required for the Step 3 targets setting methods. Many companies may determine their upstream target boundaries in Step 2 with country-level information (see section 2.1.1). Though they will be expected to set targets to address impacts associated with their activities in the associated location (e.g., in China), their targets do not have to cover the whole country or all impacts within that country. The spatial extent of companies' targets set in Step 3 should correspond to the sites/basins/locations in which the company is creating environmental and societal impacts through their economic activities (e.g., a specific basin in China such as the Hai He Basin), even when country-level information is used in Step 2.

> *As stated in the Introduction to this guidance, companies must apply the Step 2 methods for each required material pressure identified in Step 1 for each value chain component included.[4] By the end of this step, companies will have defined as many target boundaries as they have pressures requiring assessment, for each value chain component.[5]*
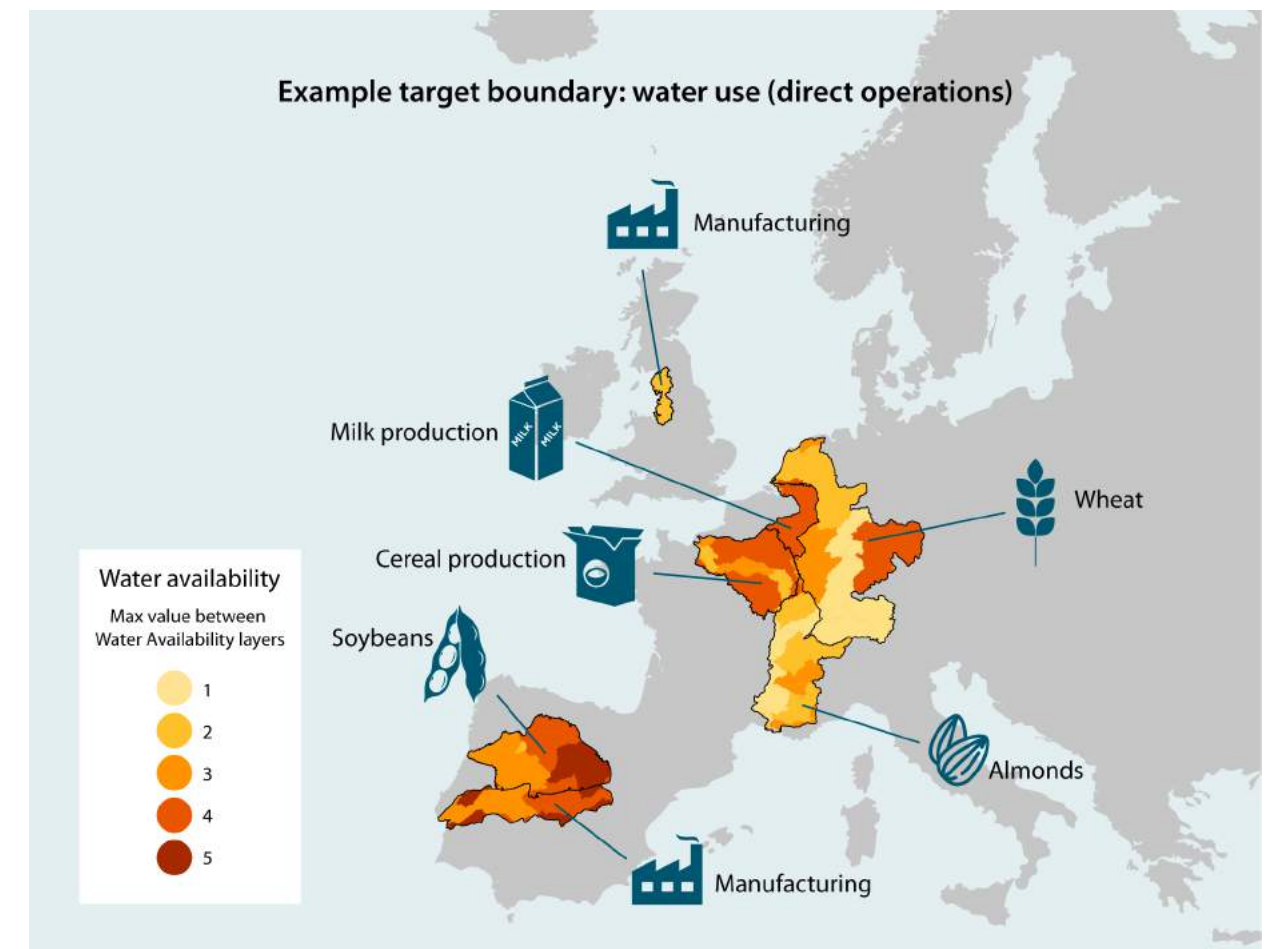

Figure 3—Example of a target boundary, for water use (direct operations). This example shows the broadest spatial extent of a company's target boundary (i.e., an area that must be managed and monitored during target setting) for its direct operations. All companies setting targets must determine the target boundary for each material pressure and value chain segment.

For the determination of target boundaries (Step 2a), companies *must* separate data on upstream activities and direct operations. This is because the spatial resolution, precision, and accuracy of the data tend to be different between direct operations and upstream, impacting the prioritization and eventual validation of target-setting. For instance, companies will likely have precise coordinates for their direct operations, whereas some upstream activities will have no location readily available. This separation also allows companies to explore factors influencing feasibility and implementation that may differ depending on whether companies are acting on impacts of their own activities or those of upstream suppliers. For example, actions put in place within the direct operations (operational organization) may be addressed within different departments than those related to upstream operations (e.g., actions on traceability or sourcing practices within the procurement department).

As stated above, the method for Step 2 *requires* companies to analyze their data for each pressure separately. It is therefore *recommended* that companies list their data separately for each pressure before starting to use the method (e.g., sort data into new sheets grouped by pressure). This data structure will support the use of the rest of the methodology, which *must* be applied for each material pressure.

2.1.1 THE DIFFERENT TYPES OF SBTN TARGET BOUNDARIES

All companies setting SBTs for nature *must* define target boundaries for all material activities and pressures in their direct operations, based on information at least at the subnational scale (ecoregion, landscape or basin). These target boundaries can be used to organize the information that companies will refine and use to set place-based targets in Step 3.

Companies may vary in their ability to define a similarly refined target boundary for parts of their upstream value chain. Ideally, all companies would be able to include all locations within one target boundary, but because of variations in data quality and resolution, this method introduces two types of boundaries for upstream: 'target boundary A', based on more accurate national or subnational information and 'target boundary B,' based on less precise and more uncertain, less spatially resolved information. Target boundary B can be used in cases where the company lacks national or subnational location data for a portion of their commodities and upstream activities. Each of these upstream scenarios can be built upon to enable corporate target setting throughout companies' material footprints over time. Figure 3 shows changes in upstream boundary A coverage between Year 0 (first assessment year) and Year 4 for an example company. Companies are *recommended* to obtain data consistent with requirements for upstream target boundary A for at least 50% of their upstream activities/ commodities before proceeding with the Step 2 method.

Locations and the commodities and activities associated with these that cannot be accounted for in the more precise upstream target boundary (target boundary A) in the first year of target setting may be included in this boundary over time as companies increase their transparency and traceability. This transition is possible based on the assumption that improvements in the company's upstream data will enable spatially explicit target-setting and increase confidence that the company is acting to address environmental impacts in the correct locations. Companies are *required* to incorporate both the upstream target boundaries A and B in order to drive place-based action through science-based targets and to ensure a comprehensive approach to environmental impact management.

To help companies prioritize where to begin setting spatially explicit targets in Step 3, and where to invest in other types of action, a prescriptive process is described in Step 2c.

Box 2–Special cases for combining data from direct operations and upstream activities, after Step 2.

As stated above, companies *must* separate their target boundaries for direct operations and upstream activities when determining the target boundary for each pressure.

In some cases, the same locations will appear within target boundaries associated with different parts of the value chain. When this occurs, companies may combine data associated with direct operations and upstream activities in Step 3 when the data are of a compatible spatial and temporal scale, and use consistent units or estimation approaches, following the guidance of the relevant Step 3 target-setting methods. For example, direct pressure measurements for a company's direct operations and upstream may be combined into a single basin-level target (for freshwater quantity or quality).

Direct measurements (associated with primary data) and pressure estimates (secondary data) *should not* be combined into a single target baseline. As companies move toward actions on and progress tracking for their targets (aided by forthcoming guidance on Steps 4 and 5), they may, however, be able to take a shared perspective toward their science-based targets for nature for more coordinated and collective action amongst stakeholders in each location.
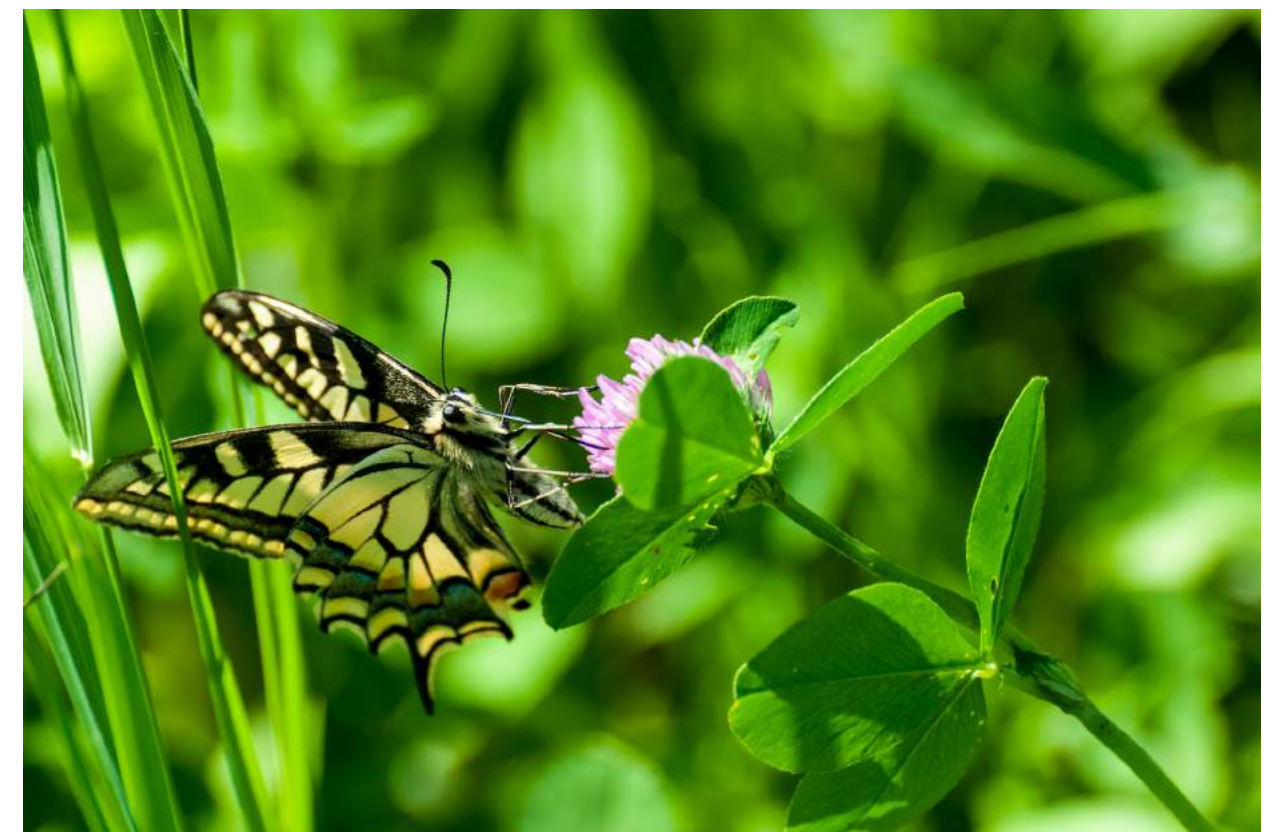
> **Companies using SBTN methods to set SBTs for nature will be required to address their impacts across pressure-specific target boundaries over time in order to make a claim on the completion of a given science-based target.**

2.1.2 DEFINE DIRECT OPERATIONS TARGET BOUNDARY

Companies _must_ define a target boundary within their direct operations for each pressure category required for assessment based on the outcome of Step 1: Assess.

The direct operations target boundary for each pressure _must_ include all material activities in the company's direct operations at a spatial scale compatible with their pressure and state of nature. This materiality assessment relies both on the initial materiality screening in Step 1a and the value chain assessment in Step 1b. The value chain assessment is a first quantification of a company's pressures and the state of nature in the areas in which they work, including biodiversity at the species and ecosystem level. The target boundaries defined for each value chain segment should include _all_ activity/service–location pairs assessed during Step 1b, as these are what are assumed to be material based on the Step 1 method.

Companies must use the pressure and state of nature data collected in the Step 1b value chain assessment for direct operations, consistent with the requirements for sub-national spatial resolution, when defining the target boundary. This spatial resolution of the target boundary will ensure the applicability of target-setting methods at an appropriate scale for these activities in Step 3. These data include pressures (e.g., for water use, water pollution, land use/occupation, and land use change/conversion) and the state variables that are most sensitive to those pressures (e.g., water availability, water quality, and components of ecosystem integrity), called pressure-specific state of nature variables (SoNP), as well as one or more biodiversity state of nature variables (SoNB).

As stated above, this information was collected as part of the Step 1 methods and in compliance with the Step 1 criteria for validation. See the SBTN toolbox for information on the datasets appropriate for use for this step (3).

2.1.3 DEFINE UPSTREAM TARGET BOUNDARIES

The target boundaries for the upstream portions of companies' value chains _must_ adhere to the same guidelines on materiality as for direct operations.

For all parts of companies' upstream supply chains shown to be material in Step 1a, upstream target boundaries are _required_ for each material pressure. There is no reduction in the scope of activities covered between the value chain assessment in Step 1b and the target boundary. In Step 1b, companies may introduce information to justify the removal of commodity/activity-location pairs if no/negligible company pressures are found. The target boundary exercise will enable companies to define where they have precise-enough data for setting targets and focus there for target-setting in Step 3. The target boundary exercise will also enable companies to define where they have less reliable data and set out a plan for improving this through traceability and transparency or otherwise reducing impacts through alternative actions.

To define target boundaries for these pressures upstream, companies _must_ use the same rules for harmonizing spatial scales introduced in section 2.1.2 for direct operations and section 2.1.4 on data collection and processing.

A notable difference between the target boundary definition process for direct operations and upstream activities is the need to consider differences in information availability and the range of uncertainty in upstream data. Companies' upstream data on pressures are likely to be associated with broad categories of goods/commodities and services/activities, and will be estimated based on the best available data the company has for tracking these. Often this will mean that a coarser scale of analysis is needed for processing pressure and state of nature data on upstream activities than is used for direct operations (e.g., country rather than basin

level). Within a company's upstream value chain, activities and commodities may have varying levels of precision/certainty or types of data available. In evaluating spatial resolution of data, companies may find it helpful to review the definitions and examples of spatial scale/resolution in Table 3. Companies _should_ use more precise and accurate information where available. Companies are encouraged to use secondary data and models to best estimate the locations they are most likely sourcing from.

Based on these differences, SBTN recognizes that companies _may_ need to define two different target boundaries for their upstream: a more precise target boundary ('target boundary A'), that can enable science-based targets, which are place-based, today and a less precise target boundary ('target boundary B'), that will require further action on traceability and transparency to enable science-based target setting, and which may also require supplier engagement and practice-based changes in order to cover the impacts stemming from activities in this category.

These boundaries must be defined for each pressure-specific target boundary. As such, companies may have different activities fall into the different boundary categories for different pressures.

Upstream 'target boundary A'
'Target boundary A' _must_ include all locations for which the company has sufficiently precise geographic information about the production units or sites of origin associated with specific commodity volumes or magnitude of upstream

activity. Sufficient precision means that these data are refined to the subnational or national level. Locations that can be included within this boundary are those for which companies have the ability to get more precise and accurate data in the short term (e.g., within 1-2 years) to satisfy the requirements articulated in Step 3 of the target-setting methodologies and apply SBTN's Stakeholder Engagement Guidance where companies are able to.

Companies that incorporate country level information in their Step 1 and 2 analyses for upstream activities/commodities _must_ replace this with more resolved data (i.e., data at subnational level) in Step 3. To include locations for which the company currently only has national-level data in target boundary A, the company should be able to either make reasonable assumptions about where in the country (e.g., at a regional level or general sourcing area) the commodity is being produced or processed, or have sufficiently strong supplier relations (or influence) to be able to gather this data.

For example, a company _may_ utilize country-level information on its sourcing of a commodity (e.g., gold from Ghana) for Steps 1 and 2, but if including this activity in its upstream boundary A, the company _must_ work with the relevant internal teams (e.g., procurement), third parties like organizations offering supply chain data or certification, or with suppliers directly to obtain subnational information appropriate to Step 3 methods (e.g., the regions within the country where mines are located, or the specific location of the mine itself) before proceeding with Step 3.

Upstream 'target boundary B'
'Target boundary B' _must_ only include locations for which the company does not have sufficiently precise geographic information about the production units or sites of origin of specific commodity volumes or upstream activities, and where this location information cannot easily be refined to national nor subnational level. Companies _must_ use target boundary B when they _currently_ do not have the information needed to set place-based targets for their upstream activities and _cannot readily obtain that information._

As an example, commodities that can only be traced to a set of countries rather than a singular country would be grouped within this boundary. Activities and commodities falling into this second boundary category are likely to be those associated with shifting sourcing locations, purchases from spot markets, collectives and aggregators (including those that are purchasing from smallholders, including those that practice wild harvesting), or for actors purchasing highly transformed or embedded volumes. Gathering precise data for activities and commodities in these categories could entail a shift in the company's business model, and not be feasible in the timeframe allotted.

For activities in this boundary, companies _must_ provide a justification that indicates the cause for the lack of current transparency and traceability and their inability to overcome this in the suggested timeframe before moving forward with the SBTN target-setting methods.

Because companies cannot immediately proceed to set science-based targets for the impacts at the locations within this boundary (given the quality of data), there is a sequenced set of requirements and recommendations for companies to follow in order to increase the coverage of science-based targets for nature within companies' upstream value chain over time as shown in Fig. 4:

♦ Companies are _required_ to advance their efforts toward transparency and traceability for commodities and activities in target boundary B, where possible.

◇ For commodities and activities where this is not easily done, e.g., when the company has limited ability to improve traceability for ground-level information despite investment, companies are _recommended_ to make changes to the practices and processes they can control in these supply chains, as well as take complementary action to reduce environmental impacts in focal landscapes where high environmental impact production of a sourced commodity are known to occur.

See Appendix 3 for more interim guidance on target boundary B.

Together, both of the upstream target boundaries—A and B—must cover the entirety of the Step 1 upstream value chain assessment scope (for each pressure). Companies must not combine information across these two target boundaries as they are not comparable in terms of scale, accuracy, and precision.

Table 3–Definitions for fine and coarse data.

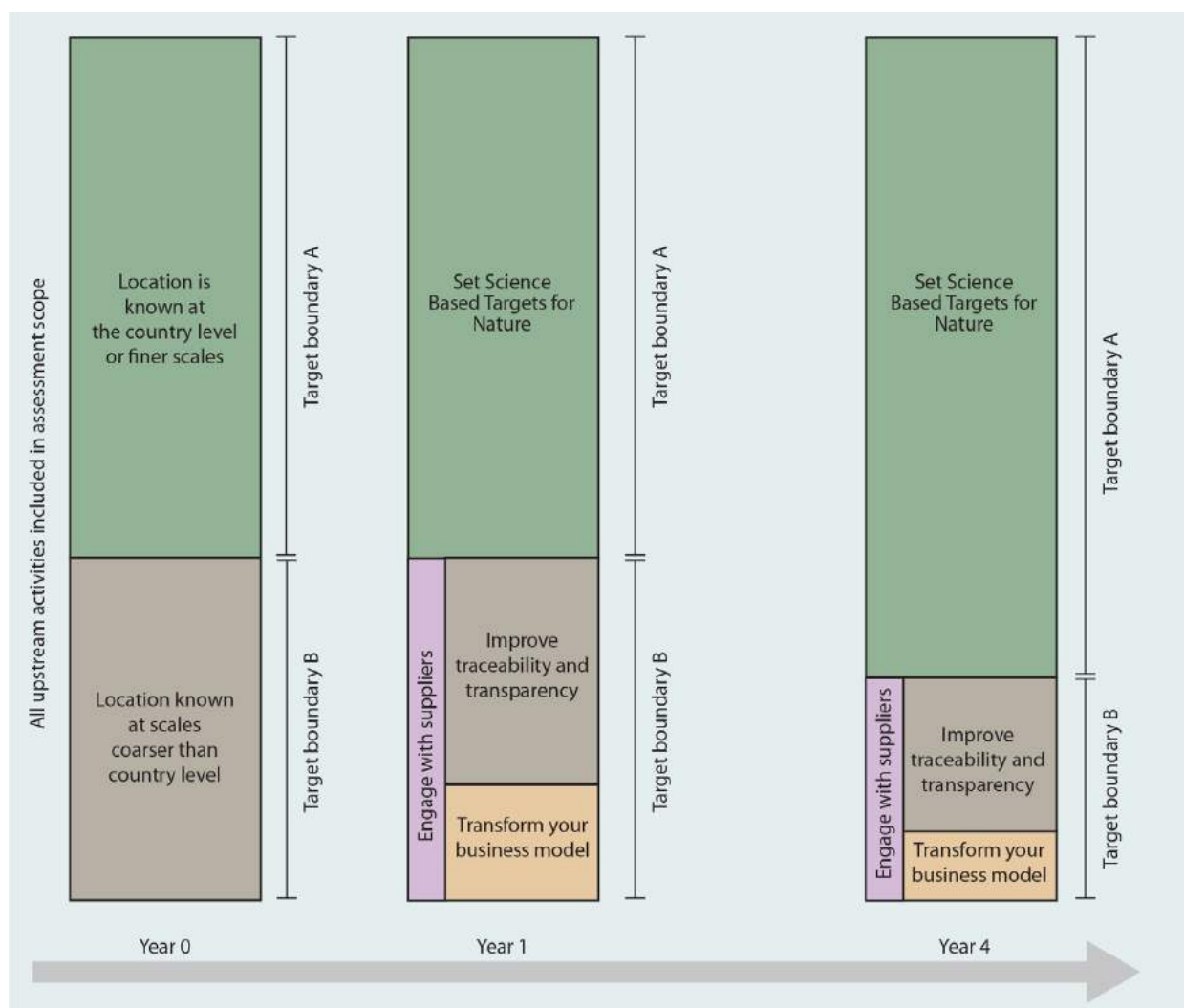| Spatial Scale/Resolution	Definition	Example
Fine-scale data _(i.e. high resolution data)_	Data where small areas can be evaluated are said to have fine or high spatial resolution. For SBTN, this typically refers to site-level or sub-national information.	Company A may have data on water use at the farm scale, meaning they know how much water is used by specific farms or subnational sourcing areas. They can also estimate their total water use at country-level by adding up the values for all farms and areas where they have impacts.
Coarse-scale data _(i.e. low resolution data)_	Data where only large areas can be evaluated are said to have coarse or low spatial resolution. For SBTN, this typically refers to country, multi-country, or continent.	Company A may only have data on land conversion at a multi-national regional level, meaning that while they know the net deforestation for that region, they cannot assign it to a specific country or to sourcing areas or farms _within_ the countries of that region.

Figure 4–Combining upstream target boundary types to increase science-based targets for nature over time. To meet SBTN validation requirements, companies will eventually need to set SBTs that cover all upstream activities that were identified as material in Step 1. However, many companies will not have adequate data to enable science-based target setting for all activities initially. In Step 2, companies determine two different target boundaries to enable separate treatment of upstream activities and locations depending on the data available. Only those activities and locations for which companies have national or subnational data (i.e. those that fall within 'target boundary A') can initially be managed through science-based targets for nature using SBTN Step 3 methods. For upstream activities that do not meet these data quality criteria, companies will be required to make advances in transparency and traceability, engage suppliers in target setting, and make practice changes to lower impacts that can be tracked through existing data (e.g. volumes and estimated pressures). Companies are recommended to cover at least 50% of the total upstream activities included in Step 2 within target boundary A.

2.1.4 GUIDANCE ON SPATIAL SCALE OF STEP 2
At the end of Step 1: Assess, companies will have estimated spatially explicit data on their pressures and the state of nature associated with this (e.g., data on land use change for a given farm was associated with the level of landscape or ecological condition for that region). As they begin Step 2, companies should preserve the data they have on activities and commodities in compatible units and **spatial scales** (also referred to as spatial resolution),[12] meaning that for each pressure category, the spatial scale of pressure data per activity _must_ be consistent with state of nature data

for that activity (e.g., retain both at country level if already compatible scales, or aggregate one value from sub-national to country level to match the other dataset). In this way, companies can use more precise and accurate data to describe their activities where it is available but have the flexibility to prioritize at the country level when more precise data are not available.

Companies are _recommended_ to use the finest spatial scale possible for each activity, depending on available pressure and state of nature data. Once companies have harmonized

the spatial scale of their data for each pressure category, they will have their final spatial data on pressures and states of nature per relevant economic activity needed to calculate the target boundary.

Note that even where less spatially resolved data are used for Step 1: Assess and Step 2: Interpret & Prioritize, more precise pressure data may be required for target setting in Step 3: Measure, Set, Disclose. Specifically, target boundaries in Step 2 may be set with less precision than what is required for target-setting in Step 3. As companies apply the Step 3 methods they may find that they set targets _within_ the full target boundary but not _for_ the whole area.[13]

Approaches for scale harmonization
In Step 1, companies received guidance on combining the scale of pressure and state of nature data (see section 3.6 of that method). Following that guidance, when pressure data are of a finer scale than state of nature data (e.g., pressures at subnational or site level vs. state of nature at country level), the data for that pressure category _must_ be added within the spatial unit of the state of nature data such that the single aggregated pressure value would be associated with one state of nature value. For example, a company would calculate the sum of all water use (P) associated with different activities within a given country and associate this with the water availability or water stress (SoN$_P$) known at the country scale. If appropriate, companies _should_ compute an area-weighted or volume-weighted sum of the pressure(s).

In the opposite case, when the spatial resolution of state data is finer than that of pressure data, an appropriate aggregating statistic _must_ be used to upscale the state data (e.g., to mean or median values). An example of this would be a company that has state- or province-level data on agricultural land use (P) but finer data on ecosystem conditions (SoN$_P$) (e.g., raster data in 1km pixels). The company would then calculate the median ecosystem intactness for the province in order to continue the Step 2 analysis.

Where the smaller spatial units (e.g., basins) are of different sizes (in contrast to an equal-area pixel) companies _should_ compute an area-weighted statistic (e.g., area-weighted average) for the either state of nature indicator (SoN$_P$ or SoN$_B$).

Finally, when there is high uncertainty regarding the location of sourcing or upstream activities (e.g., for target boundary B), companies should only aggregate their data to the national scale. For example, if a company does not know whether its purchased soy was grown in the United States or Brazil, it should keep the estimated data on average or median state of nature at national level for each relevant country, and continue to associate its net volumes or spend with a range of potential countries of origin. This can facilitate prioritization of company actions toward greater traceability by recognizing distinct environmental impacts and importance for biodiversity between locations.

Box 3–Example: the case of _Ursus Nourishment._

Taking the fictional example of the company _Ursus Nourishment_, the company's upstream pressure data for Step 1 and Step 2 was at the country level, resulting in its target boundaries spanning 11 countries. However, as the company begins baselining, they may be able to define the specific provinces or farms from which they source. If they can refine the spatial scale associated with their impact estimations, the spatial resolution of the targets they set in Step 3 will therefore likely be finer than that used to determine the target boundary and to prioritize in Step 2. Another example of this is described in section 2.1.2.

See Ursus standalone case study in the SBTN Resource library for more information.

♦ **Requirement 4. Materiality in Step 1 determines scope of target boundary exercise.**
Companies *must* set target boundaries for each issue defined as material in Step 1.

♦ **Requirement 5. Processing and evaluation of data by issue.**
When applying SBTN methods, companies *must not* combine data *between* pressure categories or *between* states of nature, as the units, values, and spatio-temporal resolutions are not compatible. All estimates of pressures *must* be analyzed separately. For instance, estimates of water use and land use change across sites and value chains cannot be combined.

♦ **Requirement 6. Full target boundary coverage is required over time.**
Companies are eventually[14] *required* to act to address their impacts across pressure-specific target boundaries, though they *may not* have to set targets *throughout the full spatial extent* associated with their target boundary.[15]

♦ **Requirement 7. Separate target boundaries for upstream and direct operations.**
To determine target boundaries (Step 2a), companies *must* separate data on upstream from direct operations.

♦ **Requirement 8. Separation of upstream data by spatial resolution: target boundaries A and B.**
When applying Step 2 methods for their upstream value chain, companies *must* separate their data based on spatial resolution. Commodity/good–location pairs that have national or subnational resolution must be separated into 'target boundary A' for upstream, while commodity/good–location pairs that have data at the multinational/regional or global level (i.e., limited certainty about actual activity location) must be separated into 'target boundary B' for upstream. For target boundary A, companies *must* have or be able to obtain sufficiently accurate and spatially resolved information (e.g., within 1-2 years), to use the Step 3 place-based target-setting methods and apply SBTN's Stakeholder Engagement Guidance.

♦ **Requirement 9. Adequate justification for boundary selection.**
For locations that companies include within target boundary B, adequate documentation is *required* to justify that the company cannot gather more accurate and precise data for these goods/commodities within a reasonable timeframe. Companies may use evidence from procurement practices as well as around the quantities of embedded and highly transformed volumes of commodities.

♦ **Requirement 10. Transparency and traceability for unknown locations.**
For cases in which companies have high uncertainty about their pressure data or location of sourcing, companies *must* follow guidance on improvements to transparency and traceability in their upstream operations, and work with suppliers to enable target-setting. This option is *only* available for upstream portions of a company's value chain.

◇ **Recommendation 1. At least 50% of upstream activities should be included within target boundary A.**
Where possible, companies are recommended to obtain data consistent with requirements for upstream target boundary A, in order to enable application of all Step 3 methods. Companies should aim to include at least 50% of their upstream activities/commodities before proceeding with the Step 2 method.

Step 2b:
Interpret and rank

SBTN methods help companies create a roadmap to start target-setting in the places that need it most, and expand ambition over time.

3.1 Interpretation and ranking within the target boundary

Though companies _must_ eventually set place-based targets throughout their target boundaries, they might not be able to act on all material pressures, in all locations, at once. For this reason, the Step 2 methodology provides a ranking approach to inform companies' target-setting strategy.

Companies _must_ follow the same process for all target boundaries for the direct operations portions of their value chain. However, in the upstream portion of their value chain, companies _can_ use different processes, depending on the levels of uncertainty for location data (upstream target boundaries A and B). For locations in companies' upstream target boundary A, the ranking process is _required_. For locations in companies' upstream target boundary B, the ranking process is optional. Throughout the ranking process, and the prioritization and evaluation processes that follow (Step 2c and Step 2d) companies _must_ maintain the separation between pressures, value chain segments and categories of certainty for location data.

For the locations where companies have sufficient certainty in location data (at least national data for upstream or subnational data for direct operations),[16] locations _must_ be ranked using the prescriptive method outlined in this portion of the method, which applies an environmental materiality perspective or impact-based approach. This ranking will allow companies to act where it is most needed for nature and where their company-specific pressures (and opportunities to reduce and minimize harm to nature and biodiversity) are greatest.

> _Note that existing relationships with local stakeholders, and information on their needs, are incorporated into the prioritization approach in Step 2b._

3.1.1 CALCULATE PRESSURE-SPECIFIC INDEX VALUES (I_p) FOR DIRECT OPERATIONS AND UPSTREAM TARGET BOUNDARY A

Note: For prioritization approaches for upstream target boundary B, skip to section 4.1.2.

This part of the method enables companies to calculate an index value (I_p) for locations using estimated pressure values (P) and pressure-sensitive state of nature scores (SoN_p). As a reminder, the index value _must_ be calculated independently for each material pressure, meaning that companies _must_ repeat this exercise for every material pressure and for each segment of the value chain. Pressure categories requiring the calculation of I_p _must_ correspond to the material pressures identified in the value chain assessment. The links between pressures and SoN_p variables is covered in section 3.6 of the Step 1 method. The number of index values needed for a given location will correspond to the number of pressure-specific target boundaries that include that location.

As noted above, this calculation _must_ only be applied in the following cases

- **Direct operations**—To locations within any pressure target boundary, assuming the company has subnational data as required within the guidelines of the Step 1b: Value Chain Assessment.

- **Upstream**—To locations within the precise target boundary/target boundary A, assuming the company has at least national data.

To calculate the index value, companies _must_ use the datasets they used to gather pressure and state of nature data in Step 1, consistent with the validation criteria and SBTN's tool and data criteria (1) (4).

As a reminder, before calculating index values, companies are _required_ to consider interpretation guidance from the tool and dataset developers for a given pressure and state of nature dataset. Use of an inappropriate indicator could impact the ranking and prioritization. If low values indicate greater urgency for action, address this within the SoN metric (e.g. take the inverse) before combining state of nature and pressure scores in the index and altering the prioritization.

Companies that used multiple state of nature (SoN_p) metrics for a given pressure category in their value chain assessment (Step 1b) _must_ harmonize the spatial scale between datasets and normalize the data (i.e., transform the data to fit within a consistent range). Following the normalization of data, companies _must_ take the highest value for that category of SoN_p data within a given spatial unit of analysis (e.g., water basin or ecoregion). Companies are also _recommended_ to record the specific metric that the highest value corresponds to if the underlying data are measuring different metrics falling into the same overall category.

To create the index value (I_p), companies combine pressure and state of nature data (from a single or composite metric as above) for each location relevant to that pressure (e.g., each direct operation activity known to have water pollution impacts) using the equation $I_p = P \times SoN_p$. This means that the pressure-sensitive index is the product of the normalized pressure (P) multiplied by the relevant normalized pressure-sensitive state of nature value (SoN_p). Companies _must_ normalize both the pressure and state of nature datasets before multiplying to ensure that both values are weighted equally. Pressure data should be normalized by pressure category based

on company data (i.e., the maximum value is the maximum company pressure within the target boundary) and all state of nature data should be normalized based on the full range of each dataset (i.e., the maximum value is the maximum global value of the state of nature dataset). See the Ursus illustrative example in the SBTN Resource library for more detail on how this can be done.

The index value _must_ be calculated for each site, and as such, _must_ use data for each variable associated with compatible spatial scales (see Section 2.1.4).

For the pressure and the SoN_p datasets used in the index, higher values are interpreted as requiring more urgent action (e.g., higher pressure is interpreted as indicating more damage potential from a given economic activity, and a higher state of nature value is interpreted as greater damage already felt by the ecosystem). Based on this interpretation rule, after calculating the pressure-specific index value (I_p), companies can then rank sites connected to a given pressure from high to low, taking higher values to mean higher priority for action.

3.1.2 PREPARE STATE OF NATURE BIODIVERSITY VALUES

As outlined in Step 1: Assess, pressure-linked state of nature datasets (SoN_P) datasets do not reflect all aspects of biodiversity necessary for companies to fully understand how their actions may contribute to positive and negative impacts on nature. For that reason, companies _must_ also evaluate the significance of different locations using a SoN_B indicator to capture additional aspects of biodiversity.

SBTN _requires_ the use of at least one biodiversity variable to evaluate SoN_B, but _recommends_ the use of multiple datasets, focused on different dimensions of biodiversity, ideally at both the species and ecosystem level.

Companies that used multiple metrics of biodiversity in their value chain assessment (Step 1b) _must_ harmonize the spatial scale between datasets and normalize the data (i.e., transform the data to fit within a consistent range). Following the normalization of data, companies should take the highest value for biodiversity in a given spatial unit of analysis (e.g., water basin or ecoregion). Companies are also _recommended_ to record the specific biodiversity metric to which the highest value corresponds (e.g., rarity-weighted richness index or an ecosystem integrity metric if using both). Companies using a single biodiversity variable, e.g., the STAR metric, may use the original data values (without normalizing) since a single metric is being used.

In the value chain assessment and the Step 2 prioritization, the choice of biodiversity data (SoN_B) _should_ fit the pressure being evaluated and the proposed action to address these impacts. For example, SBTN recognizes the ability of the STAR data to inform companies of how their actions may contribute to mitigating species extinction risk by reducing threats at a given location. However, companies _should_ review the taxonomic coverage of the data (which is currently restricted to terrestrial species) and the broad categories of action within the STAR metric (threat abatement or habitat restoration) before using these data in the prioritization of biodiversity in their target boundary. For companies currently using the freshwater methodology, this may mean

choosing another biodiversity dataset such as rarity-weighted richness which incorporates freshwater aquatic species.

Depending on the approach taken by the company, the final SoN_B value (either corresponding to a single dataset or the highest value of multiple biodiversity datasets) may be the same for multiple pressures occurring in a given location. When this is the case, companies that are using the same biodiversity metric for different pressures _may_ combine their information on pressure-specific target boundaries into a single dataset including all the relevant activity locations for ease of analysis.

After companies have calculated biodiversity scores for all locations relevant to a given pressure (target boundary), they _must_ rank locations based on these biodiversity scores within the target boundary. This location ranking is independent of the location ranking on pressure-specific index values (I_p).

3.1.3 COMBINE RANKINGS ON PRESSURE-SPECIFIC INDEX VALUES AND BIODIVERSITY STATE OF NATURE VALUES

Once companies have ranked locations within their target boundaries based on pressure-specific index values (composed of pressure and SoN_P) and biodiversity (SoN_B) values, the rankings _must_ be combined into a final ranking to inform companies' strategy for action and target setting within each pressure-specific target boundary. This ranking is _required_ for all companies before proceeding with the target-setting methods in Step 3: Measure, Set & Disclose.

As noted throughout this methodology, companies _must_ maintain the separation between pressures, value chain segments, and categories of certainty for location data while carrying out their interpretation and ranking of information within their target boundaries. This ranking approach _must_ only be applied in cases where the company has sufficient certainty of location data to inform place-based target-setting, such as in the direct operations and in their target boundary A for upstream.[18] This ranking informs an impact-based prioritization of target-setting and action,

consistent with an emphasis on nature and biodiversity needs.

Companies' actions have environmental impacts in all locations within a pressure-specific target boundary, based on the analysis in the Step 1b value chain assessment. This means that companies are assumed to have a lever for action in each of these locations, regardless of their ranking. Locations that emerge as the top priority based on the pressure-state index (I_p) are ones in which companies are expected to have the greatest levers for change, since this index value is determined both by corporate pressures and the need for action based on the linked state of nature. Locations that emerge as top priorities using the biodiversity (SoN_B) indicator represent the underlying biodiversity values that influence the severity of impacts. In areas of high biodiversity, companies' pressures may disproportionately impact biodiversity, compared with other locations where the SoN_B

is lower even if their quantified pressures are greater in those locations. For these reasons, the ranking approach in this step emphasizes action in both types of locations.

Using this method, locations that are ranked highest either based on pressure-specific index values or on biodiversity _must_ be ranked first for target-setting and subsequent action. The company then moves down the list numbering the next priority in both rankings, until all sites are labeled according to their combined priority level.

Figure 5 provides an example of how companies can rank and present their highest-priority locations based on both indexed pressure and biodiversity data for every site within a target boundary.

Figure 5—Combining location rankings using pressure-specific values and biodiversity values. The three figures show the calculation and introduction of new information, moving from the pressure ranking to the biodiversity ranking, and then to the combined ranking. Each of the nine boxes within each figure are meant to represent a different site. Each site is associated with both a value for that variable (the icons) and the ranking (the yellow number). Each icon is meant to indicate importance for that variable, with four icons being highest importance and no icons being least importance.

A) Pressure-state index ranking

1 Site A	3 Site B	8 Site C
2 Site D	7 Site E	5 Site F
6 Site G	9 Site H	4 Site I

B) Biodiversity ranking

3 Site A	4 Site B	7 Site C
1 Site D	5 Site E	6 Site F
8 Site G	9 Site H	2 Site I

C) Combined ranking

2 Site A	4 Site B	8 Site C
1 Site D	6 Site E	5 Site F
7 Site G	9 Site H	3 Site I

Each icon represents a unit of importance for the state of nature indicator

Each droplet represents a combined pressure-state index (IP) representing water use and water availability in a given location

Each symbol represents biodiversity significance in a given location

In some cases, setting a science-based target for nature in a location that is ranked very highly for biodiversity, even if it is ranked lower based on the pressure index, may seem non-intuitive for companies. However, *all locations within the target boundary are ones where companies have meaningful pressures contributing to environmental impacts.* The Step 1b value chain guidance offers a pathway for companies to provide evidence excluding given activities/commodities/locations based on negligible pressures.

Thus, actions consistent with the mitigation hierarchy (avoiding and reducing impacts as well as engaging in regeneration or restoration) and ongoing monitoring of impacts are substantive contributions that companies can make toward global goals of bending the curve of biodiversity loss, by focusing on regions of highest biodiversity or conservation need. In cases where locations have very high importance for biodiversity, ongoing monitoring is key to ensuring that company pressures stay compliant with science-based targets over time, i.e. do not increase their pressures.

For example, in a location like the Atlantic Forest, with high species richness and endemism that has undergone intensive land conversion, even smaller impacts of land conversion can have a disproportionate impact on biodiversity loss and must be urgently addressed with a No Conversion of Natural Ecosystems target.

Actions consistent with the mitigation hierarchy (avoiding and reducing impacts as well as engaging in regeneration or restoration) and ongoing monitoring of impacts are substantive contributions that companies can make toward global goals of bending the curve of biodiversity loss, by focusing on regions of highest biodiversity or conservation need.

♦ **Requirement 11. Two types of state variables for each target boundary.**
Interpretation and ranking within the boundary will require use of both pressure and state information. For each target boundary, companies must use the pressure-sensitive state variable (SoN$_P$), as well as one or more additional biodiversity variables (SoN$_B$).

Summary for the I$_P$ calculation process

♦ **Requirement 12. Pressure index values for each pressure boundary.**
The index value *must* be calculated independently for each material pressure.

♦ **Requirement 13. Restrictions on use of index calculation method.**
This calculation process *must* only be applied in the following cases:
Direct operations–To locations within any pressure target boundary, assuming the company has subnational data as required within the guidelines of the Step 1b: Value Chain Assessment.
Upstream–To locations within the precise target boundary/target boundary A, assuming the company has at least national data.

♦ **Requirement 14. Index values are required for each location.**
The index value *must* be calculated for each site, and as such, *must* use data for each variable associated with compatible spatial scales (see section 2.1.4).

♦ **Requirement 15. Datasets for use of index calculation method.**
To calculate this index value, companies *must* use the datasets indicated in the Step 1 guidance for estimating SoN$_P$ and the units specified for pressure data (see Appendix 2 to this method for ease of reference). In cases where SBTN has not given prescriptive guidance (i.e., requirements) for SoN$_P$ estimation, companies *must* document their choice of datasets when reporting the results of their ranking, and ensure that the choice is consistent with the metrics suggested and SBTN's tool and data criteria (4).

♦ **Requirement 16. Understand the interpretation guidance for each dataset used.**
Before calculating index values, companies are *required* to review the interpretation guidance for each pressure and state of nature dataset. This is typically provided by developers in supporting materials (e.g. README file). If companies cannot obtain this information for a selected dataset, companies should first contact the tool or dataset developers and, if that is not successful, please contact the SBTN team.

♦ **Requirement 17. Harmonize and normalize Step 1 pressure and state of nature data before calculating index.**
Companies *must* normalize (i.e., transform the data to fit within a consistent range) both the pressure and state of nature datasets before multiplying to ensure that both values are weighted equally within the index. Companies that used multiple SoN$_P$ metrics for a given pressure category in their value chain assessment (Step 1b) *must* harmonize the spatial scale between datasets and normalize the data before combining into a single state of nature (SoN$_P$) dataset used in calculating the I$_P$ before ranking.

♦ **Requirement 18. Apply a precautionary approach when interpreting state of nature data.**
Companies must take the highest value for each indicator. For instance, for freshwater use SoN$_P$ data, companies *must* take the highest estimated value within a given spatial unit of analysis (e.g., water basin or ecoregion), after normalizing between value ranges if they have used multiple datasets.

◇ **Recommendation 2.**
When calculating the I$_P$ companies are *recommended* to record the specific metric that the highest value corresponds to if the underlying data are measuring different metrics falling into the same overall pressure or state category.

Summary of the SoN$_B$ calculation process

♦ **Requirement 19. Species-level indicator needed to complement ecosystem-level indicator.**
In the case where an ecosystem-level indicator of biodiversity is included as a pressure-sensitive indicator of the state of nature (SoN$_P$), such as the Ecosystem Integrity Index or another index focused on ecosystem condition, a complimentary indicator at the species-level (SoN$_B$) is *required*.

♦ **Requirement 20. Harmonize and normalize Step 1 state of nature biodiversity data before using for Step 2.**
Companies that used multiple metrics of biodiversity in their value chain assessment (Step 1b) *must* harmonize the spatial scale between datasets and normalize the data (i.e., transform the data to fit within a consistent range) before combining into a single state of nature (SoN$_B$) dataset for use in the ranking process.

♦ **Requirement 21. Apply a precautionary approach when interpreting state of nature data.**
As with pressure data, companies that used multiple datasets in Step 1 *must* record the data value that corresponds to the most conservative estimate of ecosystem health in a given spatial unit of analysis (e.g., water basin or ecoregion).

◇ **Recommendation 3. Use of multiple datasets for biodiversity.**
SBTN *recommends* the use of multiple datasets, focused on different dimensions of biodiversity, ideally at both the species and ecosystem level.

◇ **Recommendation 4. Specify which biodiversity indicator is driving prioritization at each location.**
Companies are *recommended* to record the specific biodiversity metric to which the highest value corresponds (e.g., rarity-weighted richness or an ecosystem integrity metric if using both) to better understand the dimension of biodiversity that is being prioritized for a given location.

Summary of the combining values process

♦ **Requirement 22. Apply method only where there is sufficient location certainty.**
This ranking approach *must* only be applied in cases where the company has sufficient certainty of location data to inform place-based target setting, such as in the direct operations and in their Target Boundary A for upstream. An alternate prioritization approach for upstream target boundary B is described in section 4.

♦ **Requirement 23. Combine pressure index and biodiversity values using the prescriptive approach.**
Companies *must* combine their rankings on pressure-specific index values (composed of pressure and SoN_P) and biodiversity (SoN_B) values for all locations within a given boundary following the provided methodology.

♦ **Requirement 24. Maintain separation in data between pressures, value chain segments and locations based on certainty.**
Companies *must* maintain the separation among pressures, value chain segments and categories of certainty for location data while carrying out their interpretation and ranking of information within their target boundaries.

Box 5–Note on potential for reranking, triggered by Step 3.

When moving from Step 2 to Step 3, companies will gather more precise information about their pressures and state of nature at the site level (per target-specific guidance in Step 3) and evaluate additional factors related to the just and equitable implementation of targets.[19] In some cases, companies beginning to collect precise baseline data in Step 3 may find that their pressures at a given site differ significantly from the estimates used for Step 1 and Step 2. In that case, they may recalculate their ranking (section 3.1.1–3.1.3) and priorities (section 4 and section 5), and revise their target-setting strategy accordingly. In these cases, companies *must* provide SBTN with both the original data used for ranking and prioritization (in Step 2) and the revised data, ranking, and prioritization, including data sources with appropriate citations and justification.

Step 2c:
Prioritize

As they develop their target-setting strategies, companies may want to select locations where they can accomplish multiple objectives at once.

4.1 Prioritization within target boundaries

Companies setting science-based targets for nature using the SBTN's initial methods are required to complete the ranking process described in section 3 within their direct operations target boundaries and their upstream target boundary A.

Following the prescriptive location ranking, companies may use additional prioritization approaches to inform their first round of target-setting (see Step 2c and Step 2d). The priorities identified using these approaches will be informed first by the impact-based ranking (from Step 2b), and then may also incorporate factors beyond environmental and societal materiality, such as feasibility, and strategic interest.

The use of both impact- and risk-based prioritization approaches should increase the likelihood of timely action for environmental and societal benefits while reducing barriers to entry for companies beginning their science-based target-setting journey. This approach is intended to not only facilitate companies' success in setting and validating science-based targets for nature, but also to enable consideration of critical local and company stakeholders who are both affected by target implementation, and are key partners in the target-setting process.

The use of these additional prioritization methods (after completing the prescriptive ranking) *must* be consistent with the requirements of the Step 3 methods.

- Companies setting No Conversion of Natural Ecosystems or Land Footprint Reduction targets *must* include all locations in their target boundary for land use and land use change for both direct operations and upstream boundary A in their first round of target-setting. Therefore, they cannot exclude any locations by using a a prioritization approach that allows for postponing target-setting until a later date. Companies using these methods should still use the outcome of the ranking from Step 2b to prioritize action consistent with an emphasis on nature and biodiversity needs.

- Companies using these methods should still use the outcome of the ranking above to prioritize action consistent with an emphasis on nature and biodiversity needs. Companies setting Landscape Engagement, Freshwater Quantity, and Freshwater Quality targets *may* use a prioritization approach to inform the first round of target-setting for locations within direct operations and upstream target boundary A.

In cases where a prioritization approach is applied, companies will be *required* to specify a time-bound plan for increasing coverage of the material activities within the target boundaries.

Companies that choose not to use a prioritization approach, as prescribed by SBTN, to inform a cutoff following the location ranking for their targets will be *required* to address 100% of their target boundaries for those pressures, using the strictest interpretation of the target-setting guidance.

Unlike the ranking process described in section 2.2, companies *must* prioritize actions on transparency and traceability for upstream commodities and activities within companies' upstream (target boundary B).

These SBTN prioritization methods are based on an environmental and societal materiality perspective, intended to incentivize action on environmental impacts where it is needed most. After applying these perspectives, companies are recommended to include additional social and human rights considerations as well as a financial materiality in their final prioritization, intended to incentivize just and equitable action in places where companies are able to get started first. Further guidance introducing these perspectives is provided in Step 2d: Evaluate Feasibility and Strategic Interest.

4.1.1 PRIORITIZATION OF LOCATIONS WITHIN TARGET BOUNDARY A

Before proceeding with the methods for Step 3: Freshwater and Step 3: Land, companies may apply a cutoff that affects the application of these methods for calculating science-based targets. Companies can apply this approach boundary by boundary, or look across pressure-specific boundaries for synergies (co-benefits).

Freshwater targets

For targets on freshwater use and freshwater pollution (addressed in Step 3: Freshwater), companies are _recommended_ to select the highest 10% of basins, or 10 basins if there are more than 100 basins in each target boundary, as top-priority basins for the first round of science-based targets. Companies should be aware that the ranking of basins may be different for water quantity than for water quality, depending on the company's pressures and the state of nature at each site.

The target-setting guidance for Step 3: Freshwater requires a higher level of resource investment for use of local hydrological models. To allow companies to focus their resources in the most important basins, companies are _recommended_ to use the cutoff described above. Companies setting targets in basins that don't fall within this top-priority category will be allowed to use pre-defined global hydrological models (greatly reducing resource investment for model selection). Companies that decide not to follow this prioritization approach will be required to treat all basins as if they were in the top-priority category and will be required to seek local hydrological models for each of these basins.

Land targets

As noted above, the prioritization approach is not applicable to the methods for the No Conversion of Natural Ecosystems and Land Footprint Reduction targets (within the direct operations or upstream target boundary A).

Companies setting a No Conversion of Natural Ecosystems target and Land Footprint Reduction target within the Step 3: Land methods must include all upstream activities/ commodities within upstream target boundary A ahead of the specified target date associated

with their position in the supply chain. This will be required to enable science-based target setting and, by target date, to provide evidence of deforestation and conversion-free status of sourced commodities. For example, companies sourcing from producers or first point of aggregation within Group 1 ecosystems must achieve their target by 2025, hence all sourced commodities must be in target boundary A ahead of that date. SBTN may provide additional thresholds and guidance applicable to embedded or highly transformed volumes in future releases.

For the Landscape Engagement target (Step 3: Land) companies are _recommended_ to use the outcome of their land use target boundary rankings (combined with biodiversity) as detailed in section 2.2 and address the top 10% of areas within the target boundaries for land use, land use change, and soil pollution. The prioritized list should include, for each boundary, sites that cover at least 10% of the total direct operations and upstream target boundaries (respectively). In each of these sites, companies will be expected to engage in landscape initiatives, following v0.3 Step 3: Land methods. When there are no existing landscape initiatives in priority areas, companies are _required_ to use the further target boundary ranking to inform the next priority areas for coverage with this target.

However, companies applying the Land Footprint Reduction Target in addition to Landscape Engagement are _required_ to utilize additional approaches for prioritization when applying the Step 3 methods because the choice of landscapes for Landscape Engagement must incorporate requirements on restoration of lands taken out of active agricultural production. For example, if a company applies the Land Footprint Reduction Target and decreases the area associated with intensive corn production in the Argentinean Pampas, a region of temperate grasslands, that target is recommended to be accompanied by application of an appropriate Landscape Engagement Target, for example one focused on restoration in the same landscape. This landscape may not have been the highest priority for Landscape Engagement based on the Step 2 methodology, but this can be superseded by holistic

considerations associated with the application of the target-setting methodologies in Step 3.

Companies _must_ submit adequate data and justification to explain their cutoff percentage, including an explanation if they are unable to address the suggested 10% of the target boundary area with Landscape Engagement targets in the first year. If no percentage or justification is provided, companies will be _required_ to address 100% of their target boundaries using the strictest interpretation of the target-setting guidance (i.e., full coverage of the target boundary with Landscape Engagement Targets).

Co-benefits approach

Companies are _recommended_ to apply a co-benefit perspective to the prioritization of target setting when possible. This perspective can allow companies to focus on the added benefits for nature that can be achieved when companies address multiple pressures in a single location simultaneously with science-based targets (5). When this approach is applied, companies should identify locations that emerge as high priorities for multiple pressure categories to act first (e.g., companies may use this approach to prioritize within the target boundaries for water use and water pollution). Companies, skipping any high priority locations within a given target boundary to focus on these co-benefits _must_ advance multiple science-based targets in these locations, in accordance with this co-benefits approach.

Addressing locations with higher potential for co-benefits within the first round of targets potentially creates a larger net local benefit for nature,[20] and may also have additional benefits for local stakeholders and the companies applying the targets.[21] Companies may be able to take coordinated action to more thoughtfully engage local stakeholders, reducing burden and providing more transparency into the company's overall actions. This approach may also allow companies to build efficiencies in resourcing and to more rapidly advance progress in target-setting across multiple pressure categories.

4.1.2 PRIORITIZATION WITHIN UPSTREAM TARGET BOUNDARY B

Some companies will have to determine a second upstream target boundary, target boundary B, because they do not _currently_ have the information needed to set place-based targets and cannot readily do so. In these instances, companies are _required_ to utilize a prioritization approach for commodities or activities and locations in this boundary to guide their efforts toward alternative measures for impact reduction. These include, for example, gaining the traceability necessary for place-based targets, including engaging suppliers in those efforts, changes to company or supplier practice or product design, and contributions to addressing systemic impacts in focal landscapes.[22]

When commodity origins only are known at multinational or continent-scale, companies should use information about potential impacts of the commodity in those locations to prioritize further traceability, as well as supplier and landscape engagement. In the absence of any information about commodity origins, companies should prioritize efforts across commodity supply chains and suppliers based on impacts, risks, and opportunities associated with other characteristics of those segments of their supply chains.

Companies are encouraged to obtain data that is spatially resolved enough to enable setting, validating, and taking action on science-based targets for nature by 2028 at the latest. This enables progress toward global goals for 2030, such as those set out in the Kunming-Montreal Global Biodiversity Framework (GBF). However, companies should not wait to build transparency and traceability in their upstream supply chain. The need for action on environmental impacts is urgent, and where possible, companies should begin to set science-based targets for nature today with the best information they have available (direct operations and upstream target boundary A).

Companies setting a No Conversion of Natural Ecosystems target within the Step 3: Land methods must include all upstream activities/ commodities within upstream target boundary ahead of the specified target date associated

with their position in the supply chain. SBTN may provide additional thresholds and guidance applicable to embedded or highly transformed volumes in future releases. This will be required to enable science-based target-setting and, by target date, to provide evidence of deforestation and conversion-free status of sourced commodities. For example, companies sourcing from producers or first point of aggregation must achieve their target by 2025 for many ecosystems, hence all sourced commodities must be in target boundary A ahead of that date.

Because data availability will change between now and 2030, companies are _recommended_ to periodically re-evaluate their ability to achieve supply chain transparency and traceability as new data and technologies emerge, while continuing to act towards directly mitigating their impacts using current knowledge.

Companies should follow these steps in order to apply the prioritization approach and improve their supply chain data for target setting:

1. **Prepare data.** Companies _must_ organize their pressure data within their upstream target boundaries (type B) into commodity/ goods or activity/service categories with associated information on spend or volume, _likely_ locations, pressures, and states.

2. **Understand exposure to supply chain impacts.** Companies _should_ stake stock of the commodities/goods or activities/ services in their supply chain, and their significance in terms of volume or spend.

3. **Apply an impact-based perspective.** Companies _should_ use available data associated with potential sourcing locations and qualitative data from the High Impact Commodity List (6) to determine the urgency of action to mitigate nature and biodiversity loss for each commodity and upstream activity within their target boundary B.

    ·   If a commodity has the potential to be sourced from countries where its production is greatly contributing

to pressures or change in the state of nature, for example deforestation associated with the production and expansion of oil palm plantations (7), then it should be considered a high priority for greater transparency and traceability.

·   **Apply risk- and opportunity-based perspective.** Companies _should_ use criteria such as commodity dependency or financial materiality associated with a given commodity as well as the stability of supplier relationship, existing engagement with sustainability certifications or standards, and sourcing practices.

    ·   Commodities or activities for which companies have a greater dependency or greater income/revenue associated may be prioritized for traceability given their strategic value as well as the potential for environmental impact (indicated by the magnitude of spend or volume used by the company).

    ·   Companies that are a major purchaser for a given commodity or economic activity from a country or region will also likely have additional levers to obtain information through work with suppliers (e.g., Company A is the primary purchaser of palm oil from Producer B).

    ·   Supply chains in which companies have stronger and more stable relationships with suppliers (e.g., a five-year relationship between Company A and Producer B) may be prioritized due to the company's greater leverage over the supplier and greater ability to obtain information through business-to-business channels.

    ·   Supply chains through which the company sources certified products (through certification mechanisms consistent with the aims of science-based targets) may be prioritized due to the greater potential for understanding impacts and obtaining location information.

A co-benefits perspective allows companies to focus on the added benefits for nature that can be achieved when they address multiple pressures in a single location simultaneously with science-based targets.

- For supply chains in which companies are often shifting sourcing, purchasing from spot markets, purchasing from aggregators that are sourcing from a constantly changing range of locations, or when they are purchasing highly transformed or embedded volumes, both traceability and influence over suppliers may be considerably more difficult to achieve, and companies may initially choose to deprioritize these components of their supply chains.

As with the other prioritization methods, bringing together these perspectives can reveal which issues have double materiality and inform a company's strategy toward transparency and traceability across all its target boundaries. Unlike the ranking method (Step 2, section 2.2), the data informing this prioritization may be qualitative and, therefore, the ranking can be more subjective. Therefore, companies _must_ submit their prioritization for upstream target boundary B with sufficient justification to support the sequencing of their actions toward transparency and traceability.

> *Companies should not wait to gather the data needed for spatially-explicit targets. The need for action on environmental impacts is urgent and companies should begin today with the best information they have available.*

As an outcome of this prioritization, in the first year of target-setting companies _must_ make efforts to progress their transparency and traceability for the highest ranked commodities/goods (within target boundary B) in parallel with setting science-based targets where they have adequate information (in their direct operations and upstream target boundary A). As part of their investment in transparency and traceability, companies are _required_ to engage suppliers (e.g., in data collection through questionnaires and reporting systems, and timely communications, support and training). This may mean working more closely with priority suppliers to set a robust strategy of sourcing transparency and high expectations for other suppliers working with the company.

By engaging with suppliers, the whole supply chain may benefit from a company starting its SBTN journey.

Companies _must_ submit data supporting improvements to transparency and traceability on an annual basis. When companies have traceability for commodities or activity at the country scale or finer, (consistent with the standard specified for upstream target boundary A), they _must_ move to using the Step 3 target-setting methods to set and validate science-based targets.

Claims made by companies about SBTs for nature _must_ only be associated with locations where companies set and validate science-based targets in accordance with the Step 3 methods. Until companies complete target setting across the full target boundary, including for commodities found within target boundary B, they will not have met the requirements for full claims on completion of target-setting for a given pressure category.

In some cases, companies may not be able to attain adequate traceability to determine compliance with science-based targets requirements, because of current business or purchasing practices, as well as structural/system-wide barriers to traceability. This may change over time as companies transform their business models. However, recognizing that focusing companies' resources on impact traceability may not be fruitful for addressing environmental impacts in the short term, SBTN _recommends_ that companies:

◊ Source commodities and rely on upstream activities that are less impactful.

◊ Improve efficiency of material use through changes to product design.

◊ Encourage suppliers to set their own science-based targets for nature for material pressures and support changes in their practices on the ground.

◊ Engage in focal landscapes where upstream activities may have the greatest impacts on nature and

biodiversity through Landscape Initiatives that align with the Step 3: Land criteria for the Landscape Engagement Target.

In some cases, the actions that companies take prior to achieving sufficient transparency and traceability can be directly transferred toward the accomplishment of science-based targets. For this reason, SBTN _recommends_ that companies engaging in these actions, in

addition to setting other science-based targets, draw on KPIs compatible with the Step 3 target-setting methods.

Finally, to restate, companies _cannot_ currently make claims on these actions as they are not science-based targets. However, SBTN may explore the possibility of validation and claims for some of these actions.

REQUIREMENTS AND RECOMMENDATIONS –PRIORITIZATION WITHIN TARGET BOUNDARIES

♦ **Requirement 25. Ranking before prioritization.**
Companies choosing to use a prioritization approach for direct operations and upstream target boundary A _must_ first have defined their target boundary and ranked locations for each material pressure (see Section 2.2.1-2.2.3).

♦ **Requirement 26. Prioritization of upstream target boundary B.**
Companies are _required_ to submit a prioritization for upstream target boundary B in accordance with the guidance in section 4.1.2.

♦ **Requirement 27. Prioritization must not change environmental significance ranking.**
The "priority" levels generated during this exercise _must_ only be added to the data derived during the ranking exercise and not used to reorder or re-rank locations.

♦ **Requirement 28. Time-bound plans for increasing target boundary coverage.**
In cases where a prioritization approach is applied, companies will be _required_ to specify a time-bound plan for increasing coverage of the material activities within the target boundaries.

♦ **Requirement 29. Documentation to support prioritization plans.**
Companies _must_ submit adequate information to support their prioritization efforts for target boundaries compatible with science-based targets in line with Step 3 methods. Prioritizations for direct operations and upstream target boundary A should be conducted in accordance with the Step 3 Freshwater and Land methods. Companies that do not submit the required information to support cutoffs, where permitted, will be subject to stricter interpretations of the target-setting methodology.

Step 2d:
Evaluate Feasibility and Strategic Interest

To ensure targets are set in alignment with companies' existing objectives, local stakeholder needs, and are also set in consideration of emerging risks and opportunities, companies are _strongly recommended_ to apply the evaluation criteria outlined in Step 2d before moving to Step 3.

5.1 Overview

The approach outlined in Step 2d: Evaluate Feasibility and Strategic Interest is strongly _recommended_ for companies and can be used to complement, but not replace the analysis that companies complete in the earlier parts of Step 2. Companies can use information on feasibility to contextualize their ranking of locations and determination of priorities but are _recommended_ not to reorder these. As with the other phases of Step 2, this method _must_ only be applied within each of the target boundaries, not across boundaries (i.e., associated with a given pressure).

In Step 2d: Evaluate Feasibility and Strategic Interest, two additional perspectives are introduced to inform corporate target-setting strategies ahead of Step 3: social and rights-based considerations and financial materiality. While this section is as prescriptive as preceding sections of Step 2, companies may use the guidance in this section to inform an appropriate application of these criteria for submission to SBTN.

Science-based targets for nature use an _environmental and societal materiality_ lens to focus companies' actions where they have the greatest potential to increase the health of nature as part of achieving societal goals and human well-being (Step 1, Step 2a, Step 2b, and Step 2c). The optional feasibility screening in Step 2d enables companies to consider additional factors that may influence which locations and aspects of their business they will set targets on first. These include additional _social and societal_ considerations (i.e., how companies' actions generate impacts with the greatest potential to benefit people through human health and well-being). This section of the method also introduces a more local view of social and societal considerations and more company-specific information. This allows companies to move from a more global view of environmental and societal materiality, and the priorities that result from this lens to a more localized prioritization.

Within the Step 2 methods, this focuses on considerations for stakeholder engagement, grounded in a human rights perspective and underlying principles of justice, equity, diversity, and inclusion (JEDI). This approach emphasizes the need for science-based targets to be implemented in an equitable, just and inclusive manner consistent with rights-based approaches. This topic is covered in greater detail within the complementary SBTN Stakeholder Engagement Guidance document.

Going beyond environmental and societal materiality, companies are strongly _recommended_ to consider other internal factors to determine where it is most effective to set SBTs. These factors include data availability/readiness, internal company stakeholder and shareholder needs and relationships, potential risks or opportunities, and strategic significance. Each of these is important to consider, as they influence the equitability of science-based targets, the feasibility of setting and validating science-based targets, and the relative feasibility of achieving those same targets.

Companies should act on the pressures and in the locations that matter most for nature and for society but also in the places where they have the greatest ability to succeed. For this reason, companies are _recommended_ to use SBTN's guidance on feasibility alongside their impact-based prioritization with the understanding that they may use this double materiality perspective to guide their target-setting strategy.

5.2 Application of Additional Social and Societal Considerations

Considerations of social and rights-based perspectives are critical to ensuring that science-based targets contribute to global goals such as those captured within the Global Biodiversity Framework and UN Sustainable Development Goals (SDGs). This includes bringing perspectives on poverty reduction and financial security (SDG 1, 8), food security (SDG 2), human health and well-being (SDG 3), clean water and sanitation (SDG 6), and governance and societal relationships (SDG 8, 16). At the same time, broader narratives around societal goals or corporate sustainability may mask underlying impacts on the human rights of marginalized groups.

Local stakeholders, including Indigenous Peoples and other local communities, as well as government and civil society are critical partners to work with to set and achieve science-based targets, as in other types of environmental management.[24] To set equitable and effective science-based targets, companies are _recommended_ to give special consideration to the rights, perspectives, values, and goals of local stakeholders, including by incorporating other ways of knowing and traditional knowledge. This should have a particular emphasis on _affected communities_, defined as people who have been affected by company activities or value chain relationships.

Stakeholder engagement is part of companies' responsibilities for broader human rights and environmental due diligence processes, which are central to the international standards of responsible business conduct set out in the UN Guiding Principles on Business and Human Rights and the Organisation for Economic Co-operation and Development's Guidelines for Multinational Enterprises.[25] This includes the internationally recognized rights of Indigenous Peoples to Free, Prior, and Informed Consent before activities affecting their lands and other protected natural resources may proceed. It may also be appropriate for organizations to apply these rights to other affected stakeholders and communities.

Box 6—SBTN and TNFD Aligned Stakeholder Engagement Guidance.

SBTN's stakeholder engagement guidance has been developed in alignment with the Taskforce on Nature-related Financial Disclosures (TNFD) to provide a consistent framework through which companies can apply science-based targets and disclose impacts and risks within a rights-based perspective. SBTN will continue to advance stakeholder engagement in subsequent versions to embed this perspective within the application of its target-setting methods.

Stakeholder Engagement and Human Rights

Companies are _recommended_ to use the Stakeholder Engagement Guidance which is complementary to the target-setting methods.[26] It is particularly relevant to the prioritization and incorporation of societal materiality in target-setting. The Stakeholder Engagement Guidance is consistent with international standards of business conduct and core principles of human rights and environmental due diligence as well as underlying JEDI considerations.

SBTN encourages collaboration and multi-stakeholder efforts at a landscape, watershed, or seascape level using jurisdictional or scape approaches. However, building relationships with local stakeholders that facilitate equitable and effective targets and actions is a long-term process. While completing the Step 2 methods, companies are _recommended_ to lay the foundations for collaboration by examining locations within their target boundaries to understand the following:

1. The specific rights of Indigenous Peoples and those of other affected communities within companies' pressure-specific target boundaries.

2. The relevant local stakeholders to consult while developing and implementing targets, with a specific focus on affected stakeholder communities.

3. The prior relationships that exist between the company and its value chain partners and local stakeholders.

4. The companies' knowledge of local stakeholder needs and their desire and capacity for engaging with the company on setting, implementing and tracking science-based targets for nature.

Companies may wish to prioritize resources in locations where they or their nonprofit partners are familiar with key local stakeholders and able to work in partnership with them to develop corporate SBTs that will satisfy mutual needs, and engage these stakeholders in the development of strategies to meet and monitor these targets over time (e.g. local communities and governments may be key stakeholders to ensure the lasting success of restoration initiatives).

Where companies do not have existing relationships or knowledge of local stakeholders, they may work with local civil society organizations to build on existing partnerships and trust-based relationships between organizations and local communities. Where possible existing relationships, capacity and competencies within civil sector organizations and local governance bodies should be leveraged rather than relying on only internal company resourcing.

Many of the standards cited in the Step 1 method, from which companies can draw information for setting targets, require or recommend the collection and disclosure of information about company interactions with local stakeholders.

Connection to other frameworks–_social and societal considerations_

- Accountability Framework initiative
  - Respecting the Rights of Indigenous Peoples and Local Communities (8)
- Global Reporting Initiative
  - GRI 413: Local communities (2016) (9)
- International Financial Corporation (IFC)
  - Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets (2007) (10)
- IUCN
  - IUCN Global Standard for Nature-based Solutions (2020) (11)
- OECD
  - Due Diligence Guidance for Responsible Business Conduct (12)
- UN Global Compact, Oxfam and Shift
  - Doing Business with Respect for Human Rights (13)

> " SBTN encourages companies engage in collaborative multi-stakeholder efforts at a local level, including through landscape, watershed, or seascape level initiatives or jurisdictional approaches.

◇ **Recommendation 5. Use the SBTN Stakeholder Engagement Guidance and follow its guidelines.**
Companies are strongly _recommended_ to follow the guidelines in the Stakeholder Engagement Guidance to approach stakeholder engagement in a manner that will support human rights and ensure companies' environmental due diligence.

◇ **Recommendation 6. Understand the rights and needs of Indigenous Peoples and other affected communities.**
Companies are strongly _recommended_ to lay the foundations for collaboration by examining locations within their target boundaries to understand the rights and needs of Indigenous Peoples and other affected communities in locations where they are setting and taking action on science-based targets.

◇ **Recommendation 7. Engage in place-based action, as appropriate.**
Companies are _recommended_ to engage in multi-stakeholder efforts at an appropriate scale, e.g., landscape, watershed, or seascape level, by joining or supporting jurisdictional or landscape initiatives.

5.3 Application of Financial Materiality or Risk-Based Perspective

A financial materiality or risk-based perspective helps companies' target-setting strategies consider risks that could lead to financial losses or missed opportunities. It also helps them consider shareholder interests and their fiduciary responsibility. Introducing this perspective into the method once companies have already established priorities based on environmental and societal materiality assists companies in aligning target-setting with the needs of nature and people, and with their own strategic goals and core interests.

Before moving to target-setting, companies *may* evaluate the locations and commodities or activities within their target boundaries using additional factors that will influence their ability to take effective action. The factors for the Step 2d feasibility evaluation are described below in detail. Companies *may* use any combination of these factors to inform their identification of highest-opportunity and lowest-barrier locations and business aspects for target-setting. It is not mandatory for companies to use data from all factors to inform their evaluation.

Companies that choose to apply this final evaluation approach *must* record the outputs alongside their initial output from Step 2b, or Step 2c if they applied that approach. They *must* also provide details on the factors used and the information they will submit to justify their final focus in Step 3.

5.3.1 DATA AVAILABILITY AND TARGET-SETTING 'READINESS'
The data required to carry out the Step 1 assessment of pressures and provide sufficient spatial information may restrict the organizational scope that companies cover in the first round of target setting. As companies continue with the target-setting process onto baselining and setting up systems for monitoring, reporting and verifying targets, their data needs may grow. For this reason, it *may* be sensible for companies to focus on business units (e.g., a product line or multi-

country region),[27] commodities/value chains, specific activities (e.g., oil production), or specific locations (e.g. a set of countries or basins) where they are confident in their ability to access the information needed to set targets.

Confidence in data availability may be informed by previous investments in traceability of products, activities, or commodities in order to ensure compliance with voluntary certification schemes, reporting frameworks such as CDP, Greenhouse Gas Protocol (GHGP), and Global Reporting Initiative (GRI), or measurement and evaluation frameworks like the Natural Capital Protocol (NCP). In cases where companies have made investments in in-depth assessments of their impacts through life cycle impact analyses or natural capital impact analyses, this information may also improve their ability to engage in the target-setting process. Companies may also wish to focus on setting targets for parts of their business for which they have already started applying SBTN or SBTi methods.

5.3.2 STAKEHOLDER NEEDS AND RELATIONSHIPS
In addition to addressing the needs of affected stakeholders as noted above, companies may choose to evaluate additional stakeholder relationships. This includes pre-existing relationships with stakeholders (at upstream companies, within local communities, or other third-party actors) that may influence the effectiveness of a target-setting intervention.

Needs and capacity of value chain partners and/or subsidiaries
For many companies, the largest impacts and greatest opportunities for action will take place in their value chains, and thus relationships with suppliers and other value chain partners are a key consideration. Similarly, for conglomerates, it will not be possible to achieve material outcomes for nature without the cooperation and support of their subsidiaries. Just as companies may wish to act first where key value chain relationships can be leveraged, conglomerates may wish to act first where

subsidiaries are ready and willing to engage in the process of setting science-based targets.

Company-level stakeholders
In addition to local stakeholders, the preferences and demands of company-level stakeholders, such as shareholders and investors, for action in certain locations or on certain areas of the business, may be relevant for choosing where to act first. For many companies, these preferences may be reflected in their internal strategy documents or reflected in reports on materiality compiled according to the GRI or another framework. Prioritizing in this manner can help the company ensure buy-in around its chosen targets, thereby potentially increasing resources available to set, meet, and monitor these, as well as support from these internal stakeholders throughout the learning process involved in setting targets.

5.3.3 POTENTIAL RISKS AND OPPORTUNITIES
Before setting targets, companies may wish to complete a final screening of the risks associated with the locations and aspects of their business on which they are setting targets, as well as those that they are choosing to de-prioritize in year one. Drawing from the literature and common practice, there are four core types of risk that can affect companies across all core time horizons (including the short, medium, and long term): physical, regulatory, reputational, and societal risk.[28] In the medium to long term, transition risks may also arise as factors such as resource availability, regulations, monitoring technology, and societal preferences and opinions shift. For guidance on screening for opportunities, please see the TNFD (14).

Physical risk
Companies that already have information on hand about expected changes in the availability of natural resources such as water, and the stability of ecosystem service provision such as that related to hazard regulation or pollination, *may* wish to factor this into their prioritization of locations, particularly if changes in the

availability of these resources or services would challenge or potentially prevent the company from continuing to operate as normal. Changes in these resources and services can be assessed using a dependency framework such as that laid out in the Natural Capital Protocol (15), or using a tool such as Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) (16), the UNEP-WCMC Natural Capital Hotspots Map (17), the Integrated Valuation of Ecosystem Services and Tradeoffs (InVEST) models (18), or the SwissRe Institute Biodiversity and Ecosystem Services (BES) Index (19). When considering physical risks, companies may also wish to consider scenarios such as those used by the Intergovernmental Panel on Climate Change (IPCC) to evaluate which locations are likely to experience significant environmental stress under different time periods.

Regulatory risk
Companies *may* also wish to consider current and changing policies in different locations where their value chains extend when determining how quickly to act. For instance, expected changes in regulations within the EU and US regarding the disclosure of impacts may signal a need to invest in supply chain transparency and impact monitoring capacity in these locations, even when these may not have been flagged as high priorities based on earlier parts of the Step 2 methodology.

Reputational risk
Companies have for decades been aware of the risks associated with attacks on their brands or loss of face due to events and disasters. If companies seek to prioritize based on reputational risk, they *may* ask the following questions:

- Are there certain areas of the world where the company is more likely to be scrutinized?
- Are there certain commodities or types of activities for which the company is more likely to be thrust into the spotlight?
- Where are the opportunities for leadership (which could lead to reputational gain)?

Societal risk

Societal risk overlaps with physical, regulatory and reputational risk in the factors of exposure for the company, and the ways that the risk manifests. These risks overlap considerably with the social and rights-based considerations underpinning the stakeholder engagement guidance. Key additional considerations a company _should_ look at to determine whether a location should be prioritized for target-setting include:

- The reliance of local stakeholders on a resource or ecosystem service.
- The relative status of self-sufficiency of local communities and the satisfaction of their basic needs.[29]
- Real or perceived abuse by the company of workers (e.g., through poor labor conditions) or of the local environment (e.g., through illegal dumping).
- A history in the area or in the industry of environmental conflicts.

5.3.4 STRATEGIC SIGNIFICANCE

Beyond the risks above, companies may wish to consider other factors that affect the strategic significance of action in a location or on a particular commodity or business line that are not otherwise prioritized. These can be key to making the case for target-setting to corporate leadership, and ensuring buy-in from all critical internal stakeholders. The list below is drawn from the core tenets of corporate strategy frameworks, and is intended to be illustrative rather than exhaustive.

Mission and goals

- How will decisions to set targets and act resonate with the company's vision and mission? How will these affect where the company wants to be in the future?
- How much of a change does the company want to make to the way it does business, over what time period?
- What impact does the company want to have on the world?

Financial materiality

- How much of the company's total revenue or profit (value creation) is generated by a given activity location, commodity, or business line?
- How much of the company's purchases (spend) are going toward a given supply chain or location where the company is investing in science-based targets for nature?
- How much of the company's overall budget will be needed in order to start setting targets at the highest ranked locations, for each target boundary?

Company growth strategy

- What are the markets and sectors the company wants to expand into?
- What economic activities in the company's portfolio are key to growth?
- How do target-setting choices affect the balance of risks and opportunities across the company's portfolio?

Levers for change

- What systems does the company already have in place, e.g., Environmental Management Systems, and other data collection infrastructure, that can be leveraged for setting science-based targets for nature (and save upfront costs)?
- What is the degree of influence the company expects to have over upstream actors that can help ensure effectiveness of targets?
- What additional initiatives (e.g., sector-wide coalitions) can the company leverage for learning?

Opportunities for scaling and learning

- Are there ways to cluster sites, locations or business lines/activities to increase opportunities for exchange between the professionals who are setting, implementing, and tracking targets?

Connection to other frameworks–_financial materiality and risk_

- Capitals Coalition
  - Principles of Integrated Capitals Assessments (20)
- Global Reporting Initiative (GRI)
  - GRI 3: Material Topics (2021) (21)
- International Standards Organization
  - ISO 14001, Environmental management systems—Requirements with guidance for use (2015), Chapter 4.1: Understanding the organization and its context (22)
  - ISO 31000, Risk management (23)
- Taskforce on Nature-related Financial Disclosures (TNFD)
  - The TNFD Nature-related Risk and Opportunity Management and Disclosure Framework Final Draft – Beta v0.4; see content on Evaluate and Assess (24)

♦ **Requirement 30. Justify and explain exclusion of
high-priority locations from first target-setting efforts.**
Companies _must_ submit additional information (e.g., barriers to
implementation, financial materiality, or strategic interest) to
validators to explain why any highly ranked locations (according
to the impact-based prioritization in Step 2b) are not able to be
addressed by companies in their first round of target-setting.
Examples of sites companies would need to cover include those
where the company has a high footprint and the state of nature
indicators show the greatest needs for nature. Justification may
include considerations such as additional time needed to gather
data that would allow them to set a target for that location.

♦ **Requirement 31. Demonstrate commitment to increasing
transparency and enabling target-setting.**
Companies _must_ be able to show that they have plans in place
for increasing data availability (or other factors influencing
feasibility, e.g., stakeholder relationships) for high-priority,
low-feasibility sites, so that they may include these within a
future round of target-setting.

♦ **Requirement 32. Justify conclusions about feasibility.**
Companies _must_ record the evidence for feasibility as well as
details on which factors were considered, why these are most
relevant for their company, which information sources were
used, and why these were selected.

♦ **Requirement 33. Feasibility information is additional to
rankings and priorities established earlier in the method.**
Companies _must_ retain the full ranked list of locations and
activities identified as priority in Step 2b. They can then add to
this the results of their feasibility evaluation, e.g., as a column of
additional information in a table of ranked locations.

♦ **Requirement 34. Provide details on plans for overcoming
hurdles to target setting for priority locations.**
If deprioritizing sites (i.e., the company skipped over those
locations and proceeded to lower-ranked ones), the company
must also create a plan for addressing the high-priority, low-
feasibility locations (e.g., through increasing data availability
and improving stakeholder relationships). Until targets
have been set for these high-priority locations/activities,
the company must continue to disclose progress against its
articulated plan for reducing barriers to action.

♦ **Requirement 35. Confirm data readiness before moving to
Step 3.**
Companies _must_ ensure that they have or will be able to obtain,
in the short term (e.g., within 1-2 years), data to comply
with requirements for target setting in Step 3 in their direct
operations before moving to Step 3.

◊ **Recommendation 8. Apply the same feasibility evaluation
to all target boundaries.**
Once a feasibility evaluation approach is determined for a
given target boundary, this same approach _should_ be used for
each pressure category and target boundary. Any deviations in
approach _should_ be justified and explained in the validation step.

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Explanatory notes

1. See definitions of coarse and fine data in Table 3.

2. This guidance will grow in subsequent releases with the release of a first version of Step 4: Act as well as the results of the target validation pilot.

3. See SBTN Initial Guidance on Step 4: Act. https://sciencebasedtargetsnetwork.org/wp-content/uploads/2020/11/Science-Based-Targets-for-Nature-Initial-Guidance-for-Business.pdf.

4. See SBTi if climate is material: https://sciencebasedtargets.org/. If other issues are material, see SBTN Resources page for Step 3 guidance.

5. Pressures that will be covered in V2 of SBTN target-setting methods are recommended to be included in Step 2 but are not required. Additional pressures that are not material and required, nor recommended can be included in companies' application of Step 2 if desired.

6. This can be anywhere between 1–5 material pressures, the full list of pressures companies may continue to assess and analyze in Step 2 is provided in Appendix 2 of this guidance.

7. This differs from but is in line with the SBTi interpretation of target boundary, which connects the concept to the scope of the company's GHG inventory, and the activities within this that are then deemed to be material for target setting.

8. See SBTN Glossary.

9. Guidance on downstream activities will be covered in future methods.

10. See SBTN Glossary.

11. The time for evaluating achievement of a given target, the "target period," is specified within the Step 3 methods and is specific to a given target setting method. For example, the target period of five years for a freshwater quantity/quality target is not necessarily the same as for the achievement of a no conversion target for land, which is specified based on the type of company and location of sourcing.

12. See definitions of coarse and fine data in Table 3.

13. See Table 2; see also Section 3.5: Estimate state of nature in the Step 1 method.

14. Note: Companies may come across these issues of spatial incongruence in their direct operations data, but are more likely to find these with their upstream data.

15. Guidance on time horizons for full coverage of material pressures and target boundaries is forthcoming with the release of the V1 of SBTs for Nature.

16. For no conversion targets for land, companies will have to set targets across the full spatial extent of their target boundaries.

17. See Step 1b: Value Chain Assessment.

18. Refer to section 4.1.2 for further details on prioritization in cases of high uncertainty within the upstream target boundaries.

19. Targets should be developed utilizing the Stakeholder Engagement Guidance and additional validatable social safeguards within the method.

20. See the Jurisdictional Approaches Resource Hub: https://jaresourcehub.org/resources/jurisdictional-approaches-101/.

21. This may be difficult in some cases to assess, but could be approximated through information on SDGs (e.g., access of local populations to clean water) or the Social Progress Index, or through primary data collected through social or environmental impact assessments for specific sites/projects.

22. For more, see BCG: https://www.bcg.com/capabilities/corporate-finance-strategy/corporate-strategy.

23. Disclosure of information will be to the SBTN validation team.

24. For a standard classification scheme, SBTN will draw from IPCC (2003), which identifies six categories of land use: forest land, cropland, grassland, wetlands, settlements, and other land, including infrastructure and human settlements, and from AFI (2020), which identifies a seventh category: plantation, which must be accounted for when measuring deforestation and conversion.

25. Please note: as part of a company's contributions toward land/terrestrial ecosystem use, intensity of use will also need to be quantified. Today, we expect that the intensity of use will be approximated based on the company's contributions toward the other key pressure categories, such as pollution, resource exploitation, and invasive alien species. Further guidance on accounting is forthcoming.

26. SBTN is considering including net water consumption as an optional indicator for companies whose water use is better captured by this indicator. Given that the location, time, and quality of the water returns would affect the impact of the water use, the criteria to use this indicator is still under development.

Supplementary Material

Appendix 1. Pressure and state variables covered in the Step 1 & 2 methods

Table A1—Pressures managed with science-based targets for nature.

IPBES Pressure Category	SBTN Pressure Category
	Land use and use change (Terrestrial ecosystem)
	Freshwater ecosystem use and use change
Ecosystem use and change	Marine ecosystem use and use change
	Water use
Resource exploitation	Other resource use (minerals, fish, other animals, etc.)
Climate change	GHG emissions
	Non-GHG air pollutants
	Water pollutants
	Soil pollutants
Pollution	Solid waste
	Disturbances
Invasives and other	Biological alterations/interferences

Table A2—Pressure-linked state of nature indicators relevant for the SBTN methodology.

The variables in this list are exemplary of state of nature variables used in SBTN Version 1 methods. Guidance on the use of specific indicators is provided in Step 1b: Value Chain Assessment and Step 3: Measure, Set & Disclose. Biotic variables are shown with a green line underneath, variables at the intersection of biotic and abiotic processes are shown with a yellow line, and abiotic variables are lined with blue. Note that outside the nutrients listed below there can be biotic and abiotic components of both soil and water quality.

SBTN State of Nature (SoN) Variables
Ecosystem structure and extent, composition, and function
Species biodiversity (e.g., population dynamics, richness, extinction risk, and loss)
Nature's contributions to people (i.e., ecosystem services)
Soil quality (nitrogen and phosphorus)
Water quality (nitrogen and phosphorus)
Water availability
Precipitation
Temperature

Appendix 2. Pressure and state metrics

Table A3—Environmental pressure indicators recommended to be used in the value chain pressure assessment (from SBTN Step 1).

IPBES Pressure Category	SBTN Pressure Category	Metric
Ecosystem use and use change	Land use change	Area (km^2 or ha) converted, by pre- and post-conversion ecosystem type and use[31]
	Land use	Area (km^2 or ha) of land use, including known land management practices (e.g., crop rotation, tillage practices, or fire regimes)[32]
Resource use	Water use	m^3 or km^3, per source (surface water, ground water, etc.)[33]
Climate change	Greenhouse gas emissions	t CO_2e, per activity estimated separately for industrial activities and land-based emissions; tCO_2/t (product, e.g., cement or steel) or gCO_2/ spatial unit
Pollution	Soil pollution	Applied nitrogen (N) and phosphorus (P) (kg ha-1)
	Water pollution	kg N, P eq; total or concentration (%) in discharged water (and volume of these discharges)

Table A4—Further detail on biodiversity metrics. This table is intended to be illustrative and not exhaustive. The recommended datasets included here reflect the appropriateness for the SBTN methods, data availability, and ease of interpretation. Emphasis is placed on global datasets. See the SBTN Step 1 Toolbox for more specific information on specific datasets and tools to be used in the biodiversity assessment.

Dimensions of biodiversity (SoN$_B$) relevant for Step 1 and 2 methods	Description of biodiversity metrics (SoN$_B$)
Species endemism	Species endemism relates to the uniqueness of a species - often defined by the size of its global range. Rarity-weighted richness is a commonly used measure that combines endemism and species richness. It is calculated as the sum of the inverse of species ranges within a given grid/raster cell.
Species extinction risk	The risk that the global population of a species falls beneath a critical threshold resulting in an inability of the species to reproduce and thrive across all populations. The Species Threat Abatement and Restoration (STAR) metric is an example of a metric that measures the contribution that investments can make to reducing species' extinction risk (see text for caveats on taxonomic coverage).
Ecosystem integrity/condition	Ecosystem integrity/condition comprises facets of ecosystems including structure, function and composition. Ecosystem Integrity Index (EII) is an example of an index that measures change in all three components of ecosystem integrity against a natural baseline for terrestrial ecosystems. *Note that when users are evaluating pressures for which EII is used to quantify the SoN, a complementary biodiversity indicator at the species level is required.*
Ecosystem connectivity	Measures of ecosystem connectivity (included within EII for terrestrial ecosystems as part of structural integrity), focus on structural connectivity, or the arrangement of habitat within a larger landscape matrix.
Nature's contributions to people	Metrics which capture the contributions, both positive and negative, of living nature (e.g., diversity of organisms, ecosystems, and their associated ecological and evolutionary processes) to the quality of life for people. This can be captured within the target-setting approach by evaluating provision of NCPs.
Delineated Areas of Importance for Biodiversity	These areas are determined based on aggregate metrics of biodiversity importance and may also reflect relevant conservation and management measures. Areas of biodiversity importance can be determined based on aggregate biodiversity metrics and may also reflect relevant conservation and management measures. Examples include protected areas, Key Biodiversity Areas (KBAs), High Conservation Value (HCV) areas, and 'Other effective area-based conservation measures' (OECMs).

Appendix 3. Additional actions for upstream target boundary B

The upstream target boundary B addresses cases when companies do not know the locations of the activities in their upstream value chain (e.g., associated with growing of crops, extraction or processing of metals) or have high uncertainty associated with their environmental impacts from commodities/goods within their supply chain.

In forthcoming guidance, SBTN will provide additional detail on actions companies can take to address impacts associated with their upstream target boundary B. This will be accompanied by revisions to validation and claims guidance associated with these actions.

Until further guidance is available, companies can reference this appendix as a resource to advance toward impact management for locations within their upstream target boundaries (B), to prevent impact on value chains where exact locations may be unknowable. Please note this list of actions is indicative and not comprehensive.

OPERATIONAL CHANGES AND INVESTMENTS TO CREATE EFFICIENCIES

- Invest in personnel and data management and infrastructure to ensure ability to acquire and manage larger volumes of data accompanying high spatial resolution information
- Make decisions about new procurement relationships based on certifications and standards associated with lower environmental impacts as well as higher transparency and traceabilityUptake new technologies and practices
- Make transformational changes and allocate budget to...
  - Enable impact monitoring as part of the company's core competencies, or through a dedicated resource (external)
  - Create efficiencies in resource use (in direct operations and upstream) and reduce impacts
  - Increase sustainability and circularity of the core business model and parts of the value chain the company can control
  - Enable equitable transitions that address the needs of affected communities (see SBTN Stakeholder Engagement Guidance)

CORPORATE GOVERNANCE AND MANAGEMENT OF TRACEABILITY

- Create a specific internal board/committee on transparency and supply chain data
- Incentivize the board to act on and increase traceability across key value chains

SUPPLIER AND INDUSTRY ENGAGEMENT

- Invest in and work with suppliers to build capacity for data gathering, sharing and monitoring over time
- Provide incentives or financial support to encourage suppliers to implement certifications and standards, and transition their practices
- Provide training to suppliers
- Leverage supplier and industry relationships to gather additional information, understand

hurdles, and improve ability to locate activities
- Work with peer companies and/or cross-sectorial to advance new technologies and solutions, both to lower environmental impacts as well as implementing landscape-based approaches in similar sourcing regions.
- Enable pre-competitive data sharing and insights on barriers to traceability and strategies for overcoming these.

ENGAGEMENT AT LANDSCAPE LEVEL

- For focal landscapes, those in which the companies' commodity sourcing could be associated with the greatest environmental and societal impacts, work with civil society partners to support conservation and restoration in focal landscapes.
- Utilize guidance within the Step 3: Land methodology to identify landscape initiatives with broadly recognized approaches to measuring impacts and consideration for societal impacts, particularly for Indigenous communities.