

# Science-Based Targets for Nature Guidance Updates, August 2021

Getting started with target setting

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## List of key updates

### Step 1: Assess

- [Update 1: Shift in core terminology](#)
- [Update 2: Revised approach to assessment](#)
- [Update 3: Data requirements](#)
- [Update 4: Supporting resources available for Step 1](#)
- [Update 5: Data collection guidance](#)

### Sub-step 1a: Sector-level materiality assessment

- [Update 6: Drawing the boundaries of assessment: direct operations, upstream and downstream](#)
- [Update 7: Economic activity/sector classification scheme changing from GICS to ISIC](#)
- [Update 8: Sectoral Materiality Tool](#)
- [Update 9: Assessing downstream impacts](#)
- [Update 10: Worked example for completing Sub-step 1a](#)

### Sub-step 1b: Company-level refinement

- [Update 11: Expected company tasks in Sub-step 1b](#)
- [Update 12: Worked example for completing Sub-step 1b](#)

## Preamble

This document contains information which will be used to update the Initial Guidance for Business released by the Science Based Targets Network (SBTN). An official update of the document and public release is expected to occur by the end of 2021.

In the interim, i.e. while the two documents--this update and the Initial Guidance--are separate, readers and users of these updates should reference the Initial Guidance to fully understand the entirety of setting science-based targets (SBTs) for nature.

The updates in this document reflect comments and feedback received from a wide range of stakeholders drawn from industry and civil society, to whom the SBTN team and the Global Commons Alliance are extremely grateful.

These updates specifically refer to Sub-steps 1a and 1b and the intended audience includes both companies actioning the guidance and technical experts reviewing from a scientific perspective.

Following feedback from SBTN's Corporate Engagement Program (CEP) Members and Partners, these updates will be incorporated into a Revised Guidance document to be released by the end of 2021 (see section 'Process for finalizing' below for further details). This will constitute an update of the Initial Guidance, with new and edited content primarily focused in the sections pertaining to Steps 1 & 2.

The Initial Guidance (2020) can be accessed [here](#), and the Technical Annexes to the Guidance [here](#).



## Scope

The high-level five-step process presented in the Initial Guidance remains unchanged. However, responding to challenges and uncertainties identified when applying the steps in practice, this update provides insights and revisions specific to aspects of the first phase of SBT setting *Step 1: Assess* (figure 1).

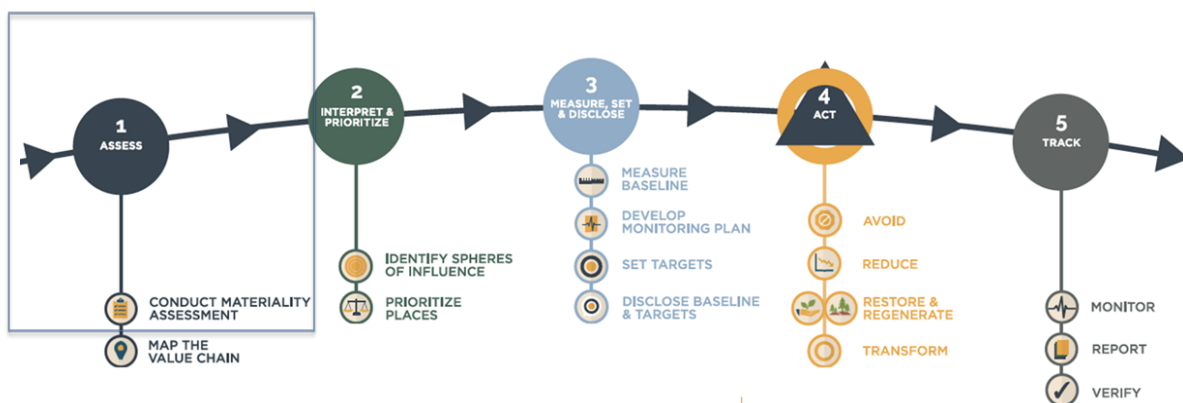


Figure 1. The scope of this document, within the context of the five-step process of setting SBTs for nature.

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## Next steps on SBTN Guidance development

SBTN Guidance is still undergoing a process of refinement, with feedback from our corporate users and other stakeholders ever important to ensure that setting SBTs is relevant and feasible for all companies – regardless of their size and sector of operation. We welcome continued feedback, which can be provided through online questionnaires available for [CEP members](#) and other [SBTN partner organisations](#).

### **Process for finalizing this document**

There are two additional phases of development for this guidance before it is released publicly by the end of the 2021:

- **Phase I:** At the end of July/early August, this document will be shared with SBTN's Corporate Engagement Program as well as SBTN's Corporate Engagement Working Group for further circulation amongst our Network partners. This will enable companies currently testing the guidance and getting ready to set targets to have a closer look at the updated guidance. These groups (CEP, SBTN Partners) will be asked to provide feedback by the end of September. During Phase II, our technical teams will continue working on additional detail for inclusion in the formal update (Phase II), including for Steps 1c and 2, which will be tested and reviewed with internal audiences when ready.
- **Phase II:** SBTN Technical Team will incorporate finalized updates to Steps 1 & 2 into the Initial Guidance, and publicly release this as a formal update to the guidance (no later than December).

### **SBTN expected outputs by end of 2021**

Two areas identified for further development in Steps 1a and 1b are the incorporation of dependencies and the assessment of downstream activities. These are currently being worked on by SBTN. This should not discourage companies from getting started on Steps 1a and 1b today - all future updates will be designed to integrate into work companies have completed so far.

In addition to the public version of this document, the following updates to the SBTN Initial Guidance and basic resources are expected to be ready for companies by the end of this year:

- **Cross-cutting guidance**
  - Steps 1c and 2 Updates
  - Indicator framework (Steps 1-5)
  - Step 3 Update for CEP members - To include information on target boundaries, threshold determination, allocation and indicator conversion
  - Response option database (Step 4)
- **Issue-specific guidance**
  - First issue-specification to the guidance expected on freshwater (use and pollution)
- **Methods**
  - First version of methods for setting SBTs for nature expected on freshwater (use and pollution)

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## Step 1. Assess

As laid out in the [Science-based targets for nature: Initial Guidance for Business \(Sept 2020\)](#) (Initial Guidance), in order to set science-based targets (SBTs), companies should gather and/or supplement their existing data on environmental issues to estimate their contributions towards these at sector-level, company-level, and across their value chain(s). This data is essential in order to estimate their exposure to nature-related risks (e.g., supply chain disruption, scandal due to species harm, or fines due to pollution events) which can accrue to the company as financial consequences.

In many ways, the approach to setting SBTs is similar to, and builds upon, the extensive work some companies have already conducted to understand the impact of their value chains using the Greenhouse Gas (GHG) Protocol, Natural Capital Protocol (NCP), and/or the Biological Diversity Protocol (BDP). These protocols are valuable for assisting companies with identifying their material contributions to the state of nature and for gathering the data needed to set SBTs. A number of the updates to the SBTN Initial Guidance for Business included in this document bring the SBTN approach into closer harmony with the GHG Protocol, NCP, and BDP by reflecting and enshrining the accounting principles of these protocols. The principles highlighted in this update include: consistency, relevance, completeness, transparency, replicability, and rigor.

To achieve societal goals for nature, action within *and* beyond the corporate value chain is necessary. This is described in the SBTN Initial Guidance as the four spheres of corporate influence (figure 2), expanding from direct control over direct operations, out to spheres of influence, including the value chain (upstream and downstream), areas or landscapes adjacent to business activities, and the economic and social systems in which businesses are embedded. Companies setting SBTs will be expected to take action to control their negative impact and increase their positive contributions to nature and society throughout all four spheres.

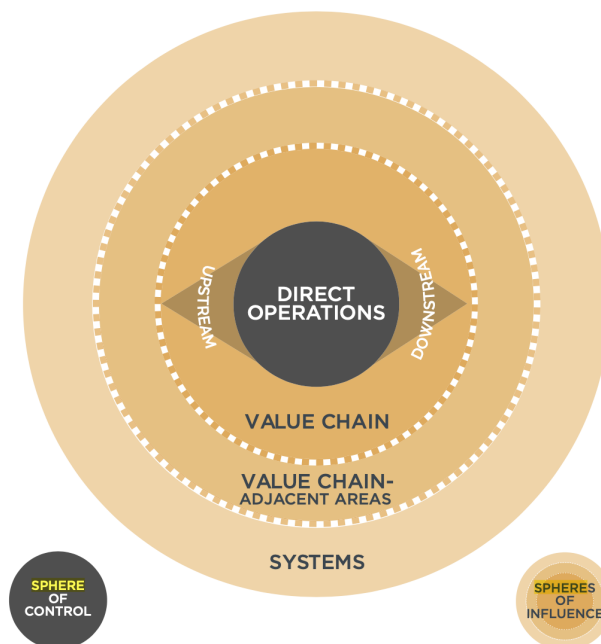


Figure 2: Sphere of control and spheres of influence.

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Recall from the Initial Guidance that the overall perspective when identifying impacts and setting SBTs is one of “societal materiality.” Based on this societal perspective, SBTN gives companies guidance on what issues and which locations to prioritize for action, at times compelling companies to go above and beyond what is regulated, in order to contribute to a more livable Earth for all.

The following are key updates to the guidance for Step 1:

- Update 1: Shift in core terminology
- Update 2: Revised approach to assessment
- Update 3: Data requirements
- Update 4: Supporting resources available for Step 1
- Update 5: Data collection guidance

### Update 1: Shift in core terminology

<b>Key action for companies</b>	Familiarize yourself with the application of DPSIR terminology
<b>Cross-reference to Initial Guidance</b>	Page 16 (2.2 Step 1: ASSESS)

The Initial Guidance used the term ‘impact,’ consistent with the Natural Capital Protocol. In this update, a change in terminology is introduced, intended to be consistent with the **DPSIR** (driver-pressure-state-impact-response) framework (Figure 3), which underpins SBTN’s approach to target setting. As a result, in this document the previous use of the term “impact” has been replaced with “pressure” or “state,” where applicable in accordance with the DPSIR Framework.

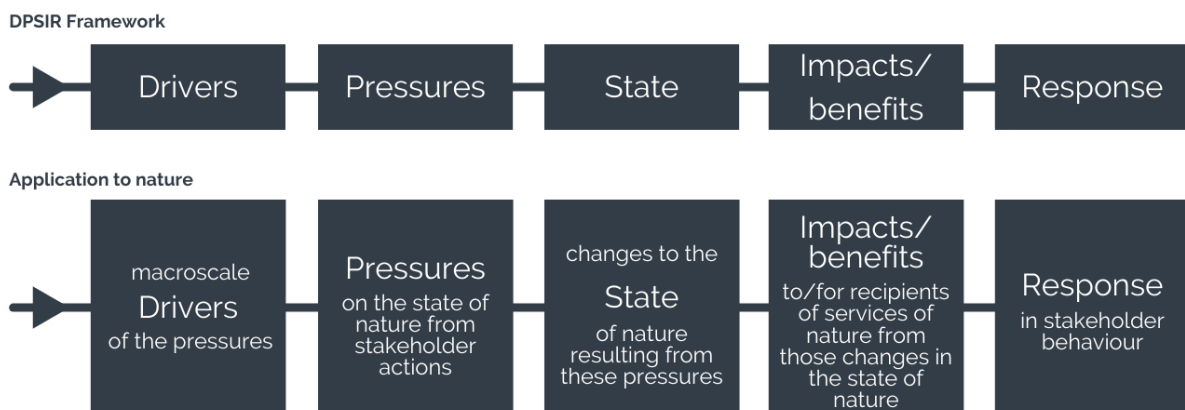


Figure 3: Application of the DPSIR Framework to nature

### Understanding Step 1 through DPSIR

For Step 1, the most important outcome is having companies map out their contributions to a list of key pressures (see list in Table 1 below), which can then be assigned what we can call “translation factors” in order to calculate their contribution toward (changes in) states, such as ecosystem intactness, biological diversity, soil intactness and pollution levels at various spatial scales. Translation factors will be assigned as part of the target calculation methods (applied in Step 3) to allow estimates of how a company's current pressure footprint might contribute towards (positive and negative) changes in the state of nature. Changes in the state of nature (e.g., an increase in global mean temperature, or a decrease in mean species

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abundance in a given region) can have knock-on effects or 'impacts' which are felt by humans and non-human species alike. These impacts determine the health of the planet, and all life within it. Specific impacts can include alterations to ecosystem function, resulting in changes like increased human and non-human exposure to disease or hazards (e.g., due to nature's decreased ability to regulate viruses and pests, as well as a decreased ability to regulate hazards), decreased access to clean water and air, as well as greater food and economic insecurity. It is because of these impacts, not just the state of nature and the pressures on it towards which companies and other economic actors contribute, that science-based targets are necessary.

Understanding *Step 1: Assess*, as well as the approach to SBT setting more broadly, through the DPSIR lens can enable those applying SBTN's guidance to become more aware of not only the everyday activities which they can control (i.e. *pressures*), but also the results of these actions (in terms of changes in the *state* of nature), and how these connect to a good quality of life for humans and non-human species alike (i.e. *impacts*).

### Categories for target setting

The Initial Guidance introduced eight key categories on which companies are expected to set targets. These categories are informed by the scientific literature, which outlines the five key pressures driving the loss and degradation of nature,<sup>1</sup> as well as the three-part breakdown of state variables which must be monitored to ensure the success of target setting activities. The Initial Guidance also specified that targets were likely to vary across three realms: land, freshwater and ocean. The initial target framework is shown in Table 1 below.

	Realms		
	Land	Freshwater	Oceans
Pressures	Ecosystem Use/Use Change		
	Resource Exploitation		
	Climate Change		
	Pollution		
	Invasive species & other disturbances		
States	Species (abundance, extinction)		
	Ecosystems (extent, integrity)		
	Nature's contributions to people		

Table 1. Target category framework underpinning SBTN approach.

Step 1 focuses on helping companies undertake an initial screening of their contributions towards the pressures outlined in this framework. To facilitate this screening, a number of pressure indicators have

<sup>1</sup> The categories of nature-related issues/issue areas (pressures) is based on [IPBES 2019](#) and echoed throughout the scientific literature and environmental community as the key pressures (or 'direct drivers' using IPBES terminology) fueling the loss and degradation of biodiversity.

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been identified that can be used to track contributions toward overall pressure budgets, based on economic activity data. The separation between societal pressure budgets and company contributions is necessary in order to facilitate proper measurement and action. Societal pressure budgets must be measured at an aggregate level (totalling data across the global economy, or regional economies, depending on the issue at hand) and company contributions must be measured at a corporate level (totaling location-specific data across the company’s operations and value chains) in order to capture the full picture, as well as individuals’ contributions to this. The relationship between these societal pressures/nature-related issue areas and company contributions towards pressures is shown in Table 2.

Nature-related issue area	Pressure category (previously termed “impacts”) <sup>2</sup>
Land/water/sea use change	<ul style="list-style-type: none"> <li>• Terrestrial ecosystem use</li> <li>• Freshwater ecosystem use<sup>3</sup></li> <li>• Marine ecosystem use</li> </ul>
Resource extraction/overexploitation	<ul style="list-style-type: none"> <li>• Water use</li> <li>• ‘Other resource use’ (Fish, wild-caught mammals, timber, mineral extraction)*</li> </ul>
Climate change	<ul style="list-style-type: none"> <li>• GHG emissions</li> </ul>
Pollution	<ul style="list-style-type: none"> <li>• Non-GHG air pollutants</li> <li>• Water pollutants</li> <li>• Soil pollutants</li> <li>• Solid waste</li> </ul>
Invasives and other	<ul style="list-style-type: none"> <li>• Disturbances</li> <li>• Biological alterations/interferences*</li> </ul>

Table 2. Nature-related issue areas, societal pressure budgets and pressure categories (to be assessed by companies). \*Please note the addition of two new categories to this framework vs the Initial Guidance in response to feedback received on category coverage. These have both been incorporated into the Sectoral Materiality Tool (Update 8) to enable companies to assess their contribution to these pressures in Step 1a.

## Update 2: Revised approach to assessment

<b>Key action for companies</b>	Note reversal of Steps 1b and 1c in the process
<b>Cross-reference to Initial Guidance</b>	Page 17 (2.2 Step 1: ASSESS)

The Initial Guidance provides details on what companies should do to collect the best data for target setting under the heading of *Step 1: Assess*, with the step divided into three phases, also referred to as sub-steps. These sub-steps have been reordered (figure 4), such that company-level refinement immediately follows the sector-level assessment, with the final sub-step now being the value-chain hotspot assessment. This provides a more logical progression, with increasing detail captured as a company progresses through the sub-steps: Sector->Company->Value chain.

<sup>2</sup> The categories of pressures covered in the sector-level screening are based on the [ENCORE natural capital risk assessment tool](#) and [Natural Capital Protocol](#)’s categories of impact drivers.

<sup>3</sup> Freshwater ecosystem use refers to the activities that take place in that ecosystem and can result in use change, i.e. a significant change in the ecosystem dynamics, e.g., through damming a river. Freshwater use is the extraction of water (for both consumptive and non-consumptive use, e.g., cooling), whereby the extraction is the pressure in the DPSIR framework and the depletion level is the change in state of nature.

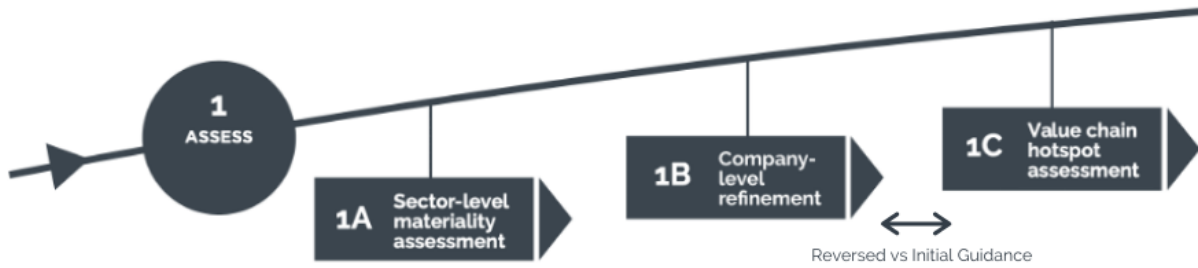


Figure 4: In this update, the final two stages of the approach to Step 1: Assess laid out in the Initial Guidance are reversed. What is now described as 1b (company-level refinement) was 1c in the Initial Guidance, and what is now described as 1c (value chain hotspot assessment) was 1b in the Initial Guidance.

Step 1: Assess can therefore now be summarized as follows:

*Sub-step 1a: Sector-level materiality assessment* is undertaken to indicate issue areas and pressure categories where a company, based on sector-average data and available literature, is likely to have material impacts on nature.

*Sub-step 1b: Company-level refinement* uses knowledge of the company's operations and activities to review and refine the list of likely pressure categories and identify those that are material, those that are "out of scope", and any pressure categories relevant to the company that were not identified using the sector-average data.

*Sub-step 1c: Value chain hotspot assessment* uses the list of company-level material pressure categories to guide the identification of those pressure categories that are relevant to specific and spatially-explicit activities within the value chain.

The key output from the assessment conducted in Step 1 is a list of issues material to the company. By the end of Sub-step 1a, the company should have an initial indication of the issues it needs to assess, and for what aspects of its business (direct operations, upstream and downstream), accompanied by scores of potential materiality associated with its contributions toward different pressures. By the end of Sub-step 1b, the company will have a refined list of these scores, associated with issues/pressures and aspects of its business. Sub-step 1c will enable companies to link their activities and pressure contributions to spatial information, which is needed in order to understand the severity of companies' contributions to societal pressures and the state of nature. The inventory compiled by the end of Step 1 should be as comprehensive as possible (see Update 3), as it is not until Step 2 that the list is prioritized.

*Reminder: This update only includes content on Sub-steps 1a: Sector-level materiality assessment and 1b: Company-level refinement.*

### Update 3: Data requirements

<p><b>Key action for companies</b></p>	<p>Assess your position on the TNFD data readiness framework and see Update 5 for additional guidance available to enhance your data collection processes.</p>
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The Initial Guidance states that companies should assess the totality of their current impacts and dependencies on nature. This includes assessing how business activities within companies' direct operations, as well as upstream and downstream, contribute toward pressures on nature and to companies' overall exposure to nature-related risks as well as their contribution toward these risks at the societal level.

Recognizing the varying degrees of readiness of companies to collect environmental data, a staged approach to data collection is proposed, following the initial data requirements expected from the [Taskforce on Nature-related Financial Disclosures](#) (TNFD). This staged approach is expected to make it more possible for companies to meet SBTN's requirements and engage in the target setting process.

The requirements listed below reflect understanding of companies' current readiness, data needs for using SBT-related tools, data needs for using SBTN methods, and data requirements expected from the TNFD and other disclosure frameworks.

The initial framework proposed is as follows:

- **Basic:** Collect spatially-explicit pressure data for activities/processes over which the company has direct control\* and pressures/issues which are most material\*\*
- **Intermediary (I):** Collect spatially-explicit pressure data for activities/processes over which the company has direct or indirect control, focusing on activities/processes which are high priority for nature-positive transitions,\*\*\* and pressures/issues which are most material
- **Intermediary (II):** Collect spatially-explicit pressure data for activities/processes over which the company has direct or indirect control, focusing on pressures/issues which are most material
- **Comprehensive:** Collect spatially-explicit pressure data for activities/processes over which the company has direct or indirect control, covering all pressures/issues

All companies should eventually aim to fulfill the "comprehensive" requirement; however, those just getting started are encouraged to focus on collecting the basics. Achieving the Intermediary stages is advised for setting robust SBTs. See Update 5 for updates on data collection guidance.

\*Direct control is defined in [Update 6](#).

\*\*Materiality scores will be derived using the Sectoral Materiality Tool. See [Update 8](#).

\*\*\*Clarification: Nature-positive transitions. Consensus is building around 'sectors' which are key for nature-positive transitions. These include: 1) Food and beverage/agriculture; 2) Energy & extractives/materials; 3) Infrastructure & built environment.<sup>4</sup> Using ISIC terminology, these would include activities within Section A, B, C, D, F, H, and I. Note that the definition of nature-positive in the context of sustainability accounting is still being refined, see SBTN's current statement [here](#) for details.

<sup>4</sup> See for instance, [BCG 2021](#), [World Economic Forum 2020](#), [Convention on Biological Diversity 2020](#), [Systems Change Lab 2020](#), and [IPBES 2019](#); as well as the report "[Beyond Business as Usual](#)" and, initial analysis performed for [EU Business @ Biodiversity](#) by UNEP-WCMC using the [ENCORE tool](#), [Iceberg Data Lab](#) using the Corporate Biodiversity Footprint (CBF) tool and CDC Biodiversité using the [Biodiversity Impact Analytics](#) powered by the Global Biodiversity Score ® (BIA-GBS) tool.

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#### Update 4: Supporting resources available for Step 1

<b>Key action for companies</b>	Trial the tools available to support your Step 1 process
<b>Cross-reference to Initial Guidance</b>	Page 24-5 (2.2.4 Tools and data for "Assess") - Table 5. Toolbox for Step 1

Based on feedback from our Corporate Engagement Program as well as companies working with SBTN partners to pilot the Initial Guidance and set SBTs, improvements have been made to the following tools.

Tools in the Initial Guidance	Updates (now)	Potential updates (future)
Materiality Matrix	<a href="#">Sectoral Materiality Tool</a>	Extension for dependencies
Toolbox	<a href="#">Tools Database</a>	Updates to expand tools included
Decision Tree	<a href="#">Company output templates</a>	Updates based on Corporate Engagement Program feedback and any requirements from validation workstream

Table 3. Summary of supporting resources available for Step 1: Assess

These resources are available in the Members Only section of the SBTN website [here](#). Detailed guidance on how to use the resource is provided in the front tab of each tool.

#### Update 5: Data collection guidance

<b>Key action for companies</b>	Take action to prepare value chain data
<b>Cross-reference to Initial Guidance</b>	Pages 20-22 (2.2.2 Value Chain Hotspot Assessment) Pages 61-63 (3.3 What can you do today?)

Key updates to assist companies with data collection for Step 1, include:

1. **Reversing Steps 1b and 1c** vs the Initial Guidance (see Update 2), to ensure value chain assessments are only carried out for company-relevant material impacts.
2. New **Sectoral Materiality Tool** for completing *Sub-step 1a: Sectoral-level materiality assessment*, including the capability to assess materiality of multiple value chains simultaneously (see Update 8);
3. Ongoing work to **align SBTN data requirements** with existing and upcoming frameworks, for example please see the [Aligning Accounting Approaches for Nature](#) and [Transparent accounting project](#), the ongoing work of the [GHG Protocol to develop specific guidance for the land sector](#) and the [TNFD](#). See Update 3.

To provide companies further support, SBTN will develop a **Data Readiness Guide**, planned for release at the end of 2021. This will give short-term and long-term recommendations to help companies collect accurate data across their value chain for input into the relevant stages of Step 1.

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Actions companies can take now to prepare the data they will need to set SBTs include:

- Assess your company’s position against the TNFD’s data maturity framework in Update 3 and what the requirements are to achieve the comprehensive level over time.
- Ensure your value chain mapping is as complete as possible. A minimum of location information at a country-level for goods purchased (from raw extraction through upstream value chain to entry to company’s direct operations) is needed for a robust Step 1 assessment.  
This could include joining sector supply chain transparency initiatives, assessing available technologies and tools to aid mapping and data collection and incorporating data provision clauses into standard terms for suppliers. Useful guidance from the Accountability Framework Initiative is available [here](#).
- Collate existing site-level impact data for owned operations across the pressures categories for use in *Sub-step 1c: Value chain hotspot assessment*.

## Sub-step 1a: Sector-level materiality assessment

This sub-step uses sector-average data to compile a draft list of issue areas and pressure categories where a company is *likely* to have material impacts on nature. By starting at the sector level, companies establish a quick **overview** of the nature-related issue areas associated with the typical economic activities of their sector(s), and within those the pressure categories that may be material and thus require target setting. This sector-level materiality assessment is intended to be a rapid screening step, the output of which is refined in Sub-step 1b.

The following are key updates to the guidance for Sub-step 1a:

- Update 6: Drawing the boundaries of assessment: direct operations, upstream and downstream
- Update 7: Economic activity/sector classification scheme changing from GICS to ISIC
- Update 8: Sectoral Materiality Tool
- Update 9: Assessing downstream impacts
- Update 10: Worked example for completing Sub-step 1a

### Update 6: Drawing the boundaries of assessment: direct operations, upstream and downstream

<b>Key action for companies</b>	Understand definitions and boundaries used in Step 1. Select control approach for direct operations boundaries
<b>Cross-reference to Initial Guidance</b>	Page 18-19 (Spheres of influence and control)

In this update, further detail is provided on the accounting boundaries used throughout the target-setting process.

To provide a standard classification system for activity data, SBTN will build from the categories provided in the GHG Protocol, the Biological Diversity Protocol (BDP) and the Natural Capital Protocol. As shown in Table 4, the value chain framework is divided into three categories: upstream, direct operations, and downstream. These aspects of business activities are applied to science-based target setting using definitions from the existing protocols, which can themselves be drawn upon as a framework for companies mapping out their value chain (Sub-step 1c). Aligning with these protocols will increase the usability of data

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which companies have already collected or begun to collect, as well as increase the ease of data collection for companies setting SBTs for climate.

	<b>BDP &amp; NCP</b>	<b>GHG Protocol</b>
<b>Upstream (cradle-to-gate)</b>	Activities of suppliers	<i>Purchased goods and services; capital goods; fuel- and energy-related activities; upstream transportation and distribution; waste generated in operations; business travel; employee commuting; upstream leased assets</i>
<b>'Direct operations' (gate-to-gate)</b>	Activities over which your business holds ownership or control	<i>Production of goods and services, company facilities and company vehicles</i>
<b>Downstream (gate-to-grave)</b>	Activities linked to the purchase, use, reuse, recovery, recycling, and final disposal of your business' products and services	<i>Downstream transportation and distribution; processing of sold products; use of sold products; end-of-life treatment of sold products; downstream leased assets; franchises; investments</i>

Table 4. Based on the Biological Diversity Protocol, Natural Capital Protocol, and GHG Protocol (Scope 3).

Both the GHGP and BDP suggest that companies can use either an **operational** and/or **financial** approach to defining the organizational boundary of their direct operations for assessment.<sup>5</sup> Remaining consistent with these established practices, both approaches are considered suitable as the accounting basis of SBTs for nature. Companies should apply their selected approach consistently across the target setting process and should disclose the approach taken in external reporting.

*Clarification: Please note that the equity share approach is not recommended for SBTs for nature because the purpose is to set spatially-explicit targets for action. An equity share approach does not facilitate a company setting targets relevant to its extended spheres of influence (see Figure 2) and aligned with the ecological thresholds of the region. It is not recommended to divide and allocate targets among different reporting entities.*

### Update 7: Economic activity/sector classification scheme changing from GICS to ISIC

<b>Key action for companies</b>	Use the crosswalk provided to identify your company's ISIC classes
<b>Cross-reference to Initial Guidance</b>	Page 20 (2.2.1 Sector-level materiality assessment)

The Initial Guidance adopted the Global Industry Classification Standard (GICS) as the basis for the sectoral categories in the SBTN materiality matrix, and as the terminology for sectors used throughout. This was considered one of the most widely used classification schemes, particularly by investors, and also informs commonly used tools like the MSCI materiality index. However, companies have found that GICS provides insufficient detail to enable their use of the classification scheme, and therefore prevents them from easily using the materiality matrix.

All future SBTN guidance, including the new Sectoral Materiality Tool (which is itself a replacement for the Materiality Matrix), will switch to terminology from the [International Standard Industrial Classification of](#)

<sup>5</sup> See [GHGP Corporate Standard](#), Chapter 3, pg. 17.

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[All Economic Activities, Revision 4](#) (ISIC) from the United Nations, rather than using GICS. The ISIC (4) is structured across four main levels: The categories at the highest level are called “sections”, followed by “divisions”, “groups” and finally “classes”, which consider only one economic activity, such that Class -> Group -> Division -> Section.

Any economic activity can be associated to all four levels, for instance:

Food sector:

Production: “Growing of rice” is recorded as Class 0112, which sits under Group 011 “Growing of non-perennial crops,” which itself is nested under Division 01 “Crop and animal production, hunting and related service activities,” of Section A “Agriculture, forestry and fishing.”

Manufacturing: “Manufacture of soft drinks; production of mineral waters and other bottled waters” is recorded as Class 1104, which is not associated with a Group code, but which is nested under Division 11 “Manufacture of beverages,” of Section C “Manufacturing.”

Chemicals:

Manufacturing: “Manufacture of basic chemicals” is recorded as Class 2011, which sits under Group 201 “Manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and synthetic rubber in primary forms,” which is nested under Division 20 “Manufacture of chemical and chemical products,” of Section C “Manufacturing.”

Energy:

Production: “Extraction of natural gas” is recorded as Class 0620, which sits under Group 062 “Extraction of natural gas”, and under Division 06 “Extraction of crude petroleum and natural gas,” of Section B “Mining and quarrying.”

Manufacturing and Distribution: “Manufacture of gas; distribution of gaseous fuels through mains” is recorded as Class 3520, within Group 352 “Manufacture of gas; distribution of gaseous fuels through mains,” nested within Division 35 “Electricity, gas, steam and air conditioning supply,” of Section D “Electricity, gas, steam and air conditioning supply.”

Infrastructure:

Construction: “Construction of buildings” is recorded as Class 4100, which sits under Group 410 “Construction of buildings,” and under Division 410 “Construction of buildings,” of Section F “Construction.” [Note: this is written as listed in the ISIC publication.]

End of life: “Demolition” is listed as Class 4311, which sits under Group 431 “Demolition and site preparation,” which is nested under Division 43 “Specialized construction activities,” of Section F “Construction.”

A crosswalk of the schemes is provided within the Sectoral Materiality Tool (Update 8) to enable translation.

### Update 8: Sectoral Materiality Tool

<b>Key action for companies</b>	Use the Sectoral Materiality Tool to complete Step 1a
<b>Cross-reference to Initial Guidance</b>	Page 20 (2.2.1 Sector-level materiality assessment) Page 20-21 (Table 3. Outputs on ENCORE materiality ratings of companies impacts on environmental issues for selected sectors) Pages 24-25 (2.2.4 Tools and data for “Assess”)

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The [Sectoral Materiality Tool](#) is designed to help companies undertake a first screening of what activities are potentially materially relevant to their sector and their firm's activities. This new tool replaces the materiality matrix introduced in the Initial Guidance, notably adopting ISIC (at the class level) as the industry classification scheme for sector descriptors, rather than GICS (Update 7). Key advantages of the move toward ISIC include:

- Ability to access a higher level of detail and more accurate capture of sector activities and thus company contributions towards key pressures
- Ability to easily translate to NACE (Nomenclature of Economic Activities) codes and other classification systems through crosswalks

As above, the ISIC is subdivided in a hierarchical, four-level structure. In the Sectoral Materiality Tool, a fifth level, "Production processes" is included in order to capture a greater level of granularity with respect to environmental damage than at the ISIC class level. This fifth category was created by UNEP-WCMC for the ENCORE materiality tool. For example the class "Manufacture of luggage, handbags" corresponds to 3 distinct production processes included in ENCORE: Jewellery production, Natural fibre production, and Synthetic fibre production, all with different pressures on nature.

For each ISIC class and pressure category combination, three types of ratings are given: one for upstream impacts, one for direct operations impacts, and one for downstream impacts (still under development). For a specific ISIC class, upstream ratings correspond to upstream processes of that class, direct operations correspond to the ISIC class' activities, and downstream impact ratings would correspond to activities happening after the direct activities.

The ratings assigned are independent of other production processes. There are five possible scores of Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL). Details of scoring and data sources are given in Annex II. For the sector-level materiality assessment (Sub-step 1a), these scores can be interpreted in the following ways:

- Material (score of H or VH) - likely to require targets
- Possibly Material (score of L or M) - needs more assessment to determine whether targets required
- Not Likely to be Material (score of VL) - targets not likely to be necessary in this period

When there is not enough information to attribute a rating, the tool will indicate ND for "No Data". These should therefore also be considered as needing more assessment to determine whether targets are required. Please see Update 9 for details of ongoing work to fill current data gaps.

It is worth noting that the level of materiality may vary across different locations in space and different lines of business. This detail is captured in Sub-step 1c, when spatially-explicit activities are considered. Furthermore, companies should assume a regular reassessment of materiality as part of the target setting process (e.g., every 2-5 years). Some impacts which are scored Low or Medium this year may have a higher value in two years. Any impacts where no data are available in the SBTN sectoral materiality tool would benefit from further investigation to determine materiality.

To use the Sectoral Materiality Tool, companies should be able to identify which 'classes' of economic activities under the ISIC classification scheme apply to their organization (see Update 7 on how to use the ISIC scheme). Companies will be able to use a filtering function in order to show only those activities which

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are most relevant to their company. Once filtered, the company then reads across the columns to see which *issue areas* (e.g., *land use change*), and *within those which pressure categories* (e.g., *terrestrial ecosystem use*), in which *aspects of its business* (upstream/direct operations/downstream) are most critical for further assessment in Sub-step 1c (and potentially for target setting in Step 3). Companies operating in multiple sectors will need to conduct this assessment for all the different areas of their business and the tool enables multiple assessments to be run simultaneously.

Note that data relating to downstream activities are still in development and are not currently included in the Sectoral Materiality Tool. See Update 9 for more details.

### Update 9: Assessing activities downstream

<b>Key action for companies</b>	Note that further work is ongoing to develop methodologies for assessing downstream impacts
<b>Cross-reference to Initial Guidance</b>	Pages 20-21 (2.2.1 Sector-level materiality assessment)

For assessing activities which are downstream from a company's direct operations, SBTN is considering a product-specific approach. Such an approach reflects the reality that while some of the levers which companies will have over downstream impacts will be the same as those for upstream impacts (e.g., product design, government lobbying, sector collaboration for responsible practices), many will differ (e.g., switching to a servicization model).

An initial list of products to prioritize for SBT setting is proposed in Update 11. To specify which are of greatest importance for pressure flows occurring downstream, a future update may group products into a shortlist of meaningful categories, based on their most important impacts stemming from the 'use phase' and 'end of life' (using the terminology of the [GHG Protocol Scope 3 Standard](#)).

These products may also be grouped according to which pressures they contribute toward most significantly. Groupings of products for downstream assessments may include *water intensive*, *energy intensive*, *resource (renewable and non-renewable) intensive* and *pollution intensive*.

### Update 10: Worked example for completing Sub-step 1a

<b>Key action for companies</b>	Use worked example to help guide your Step 1a process
<b>Cross-reference to Initial Guidance</b>	Pages 26-27 (Illustrative example of the Step 1 assessment phase)

In this example, the evaluation of potential issue areas and pressure categories at the sector-level begins with the Sectoral Materiality Tool. Other tools can be used to identify potential pressures, and a non-exhaustive list of those considered suitable was presented in the Initial Guidance. This list has been updated, and is available as an online resource.

Using the Sectoral Materiality Tool, the first action is to identify all the ISIC Class and Production processes that best represent the activities of the company (i.e. all the relevant rows in the spreadsheet). For this example, a company in the Food retail sector, the following were identified as representing the company's activities:

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ISIC Class	Production process
Growing of beverage crops	Small-scale irrigated arable crops
Growing of beverage crops	Large-scale irrigated arable crops
Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production
Retail sale of beverages in specialized stores	Infrastructure holdings

Using the blank template provided in Annex III, the ISIC Class and Production process are inserted under each pressure category, and the pressure score for each is read from the Sectoral Materiality Tool. This exercise lifts values from the Sectoral Materiality Tool and presents them within three separate tables,<sup>6</sup> such that the company records separately its materiality scores for upstream, direct operations, and downstream. The tables themselves are organized by pressure category, with all classes and production processes relevant to the company listed for each pressure category, and sector-level scores copied from the Sectoral Materiality Tool. A completed example for direct operations is presented in Table 5. Company-level scores are added to the same table through Sub-step 1b.

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<sup>6</sup> Future tool development will likely enable this report to be generated, such that all a company needs to do is identify the relevant ISIC Class and Production process(es), thereby moving swiftly to Sub-step 1b: Company-level refinement.

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Table 5; Completed template for sub-step 1a: Sector-level materiality assessment

INITIAL LIST OF POTENTIAL MATERIAL PRESSURE CATEGORIES: DIRECT OPERATIONS					
Pressure category	ISIC Class	Production process	Materiality score at sector-level (Sub-step 1a)	Materiality score at company-level (Sub-step 1b)	Justification (for company-level score)
Terrestrial ecosystem use	Growing of beverage crops	Small-scale irrigated arable crops	VH		
	Growing of beverage crops	Large-scale irrigated arable crops	VH		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	ND		
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND		
Freshwater ecosystem use	Growing of beverage crops	Small-scale irrigated arable crops	H		
	Growing of beverage crops	Large-scale irrigated arable crops	VH		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	ND		
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND		
Marine ecosystem use	Growing of beverage crops	Small-scale irrigated arable crops	ND		
	Growing of beverage crops	Large-scale irrigated arable crops	ND		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	ND		
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND		

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Water use	Growing of beverage crops	Small-scale irrigated arable crops	H		
	Growing of beverage crops	Large-scale irrigated arable crops	VH		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	H		
	Retail sale of beverages in specialized stores	Infrastructure holdings	H		
Other resource use (e.g., extraction of fish, timber)	Growing of beverage crops	Small-scale irrigated arable crops	ND		
	Growing of beverage crops	Large-scale irrigated arable crops	ND		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	ND		
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND		
GHG emissions	Growing of beverage crops	Small-scale irrigated arable crops	H		
	Growing of beverage crops	Large-scale irrigated arable crops	H		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	H		
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND		
Non-GHG air pollutants	Growing of beverage crops	Small-scale irrigated arable crops	H		
	Growing of beverage crops	Large-scale irrigated arable crops	H		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	H		

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	Retail sale of beverages in specialized stores	Infrastructure holdings	M		
Water pollutants	Growing of beverage crops	Small-scale irrigated arable crops	M		
	Growing of beverage crops	Large-scale irrigated arable crops	H		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	M		
	Retail sale of beverages in specialized stores	Infrastructure holdings	H		
Soil pollutants	Growing of beverage crops	Small-scale irrigated arable crops	M		
	Growing of beverage crops	Large-scale irrigated arable crops	H		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	M		
	Retail sale of beverages in specialized stores	Infrastructure holdings	H		
Solid waste	Growing of beverage crops	Small-scale irrigated arable crops	L		
	Growing of beverage crops	Large-scale irrigated arable crops	L		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	H		
	Retail sale of beverages in specialized stores	Infrastructure holdings	M		
Disturbance	Growing of beverage crops	Small-scale irrigated arable crops	ND		
	Growing of beverage crops	Large-scale irrigated arable crops	ND		
	Manufacture of soft drinks;	Processed food and drink production	ND		

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	production of mineral waters and other bottled waters				
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND		
Biological alterations/interferences	Growing of beverage crops	Small-scale irrigated arable crops	H		
	Growing of beverage crops	Large-scale irrigated arable crops	H		
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	ND		
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND		

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## Sub-step 1b: Company-level refinement

In this sub-step, knowledge of the company's operations and activities is used to review and refine the list of likely pressure categories, identified in *Sub-step 1a: Sector-level materiality assessment*, to produce an initial list of pressure categories that are potentially **material** to the company.

The following are key updates to the guidance for Sub-step 1b:

- Update 11: Expected company tasks in Sub-step 1b
- Update 12: Worked example for completing Sub-step 1b

### Update 11: Expected company tasks in Sub-step 1b

<b>Key action for companies</b>	Complete Step 1b using task guidance and document decisions taken
<b>Cross-reference to Initial Guidance</b>	Pages 23-24 (2.2.3 Company-level refinement)

The process of refining the information on potential material nature-related issue areas and pressure categories collected in *Sub-step 1a: Sector-level materiality assessment* is important for at least two reasons: 1) many available tools for conducting materiality assessments, including the Sectoral Materiality Tool, are at sector-level or utilize secondary data, but a company's contribution to nature-related pressures are not always fully aligned with the average company in its sector; and 2) companies may wish to include additional issue areas depending on different business objectives. Therefore, in this sub-step a company should:

- **Undertake a gap assessment of pressure categories identified through Sub-step 1a** -- adding any pressure categories relevant to the company that were not identified in Sub-step 1a due to the limitations of the Sectoral Materiality Tool and sector-average data. For this assessment, companies can use previous research conducted on their contributions to nature-related pressures as well as sense-checking with internal stakeholders across the business.
- **Ensure critical activities and products have been included** -- further assessment is required for activities or products whose associated pressures are known to be critical<sup>7</sup> (e.g., palm derivatives). Table 6 (below) provides an initial draft of activities and products which may be included in further guidance from SBTN. Please note that these lists are only indicative at this stage, a company's own research and knowledge of their supply chain should supplement the products and activities given below.

<sup>7</sup> Note: The magnitude or severity of the total environmental impact of a product, process, or economic activity can be distorted, depending on the angle of analysis. A more complete view requires assessing contribution to nature-related pressures using multiple sources of data and ways of categorizing where/how damage occurs. For this reason, we recommend looking from both product-level and sector-level perspectives as part of this step.

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Economic activities known to have a significant direct or indirect contribution to impacts on the biosphere	Products known to have a significant direct or indirect contribution to impacts on the biosphere
<ul style="list-style-type: none"> <li>● Agriculture, forestry and fishing (ISIC Section A)</li> <li>● Mining and quarrying (ISIC Section B)</li> <li>● Manufacturing (ISIC Section C; especially Division 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 25, 26)</li> <li>● Electricity, gas, steam and air conditioning supply (ISIC Section D)</li> <li>● Water supply; sewerage, waste management and remediation activities (ISIC Section E)</li> <li>● Construction (ISIC Section F)</li> <li>● Transportation and storage (ISIC Section H)</li> </ul>	<ul style="list-style-type: none"> <li>● Animal pharmaceuticals</li> <li>● Beef</li> <li>● Biofuels</li> <li>● Cement</li> <li>● Coal</li> <li>● Cobalt</li> <li>● Copper</li> <li>● Commercial seeds</li> <li>● Cotton</li> <li>● Farmed seafood</li> <li>● Fertilizers</li> <li>● Gas</li> <li>● Gold</li> <li>● Iron</li> <li>● Nickel</li> <li>● Oil</li> <li>● Palladium</li> <li>● Palm oil</li> <li>● Paper</li> <li>● Pesticides</li> <li>● Platinum</li> <li>● Pulp</li> <li>● Salmon (especially Atlantic)</li> <li>● Silver</li> <li>● Soy</li> <li>● Sugar cane</li> <li>● Timber</li> <li>● Wild caught seafood</li> <li>● Zinc</li> </ul>

Table 6. Initial list of key activities and products companies should prioritize for data collection and target setting. List currently based on [Folke et al. 2019](#) (Table 1 & Table 2) and [WWF 2012](#); this will be updated based on further research.

- **Refine the inventory and materiality scores to capture unique aspects of the company’s activities** -- in order to adequately reflect business dependencies, priorities and existing efforts, and to record how the company’s operations and activities might differ from “typical” companies in its sector(s).

For any pressure categories that are added, or where the materiality score is revised (increased or decreased), a justification should be recorded to explain the change. The output from Sub-step 1b is therefore an updated list of nature-related issues areas and pressure categories, recorded at the company-level, together with those expected for the sector and explanations of why these may differ from the typical sector profile.

Further updates to the guidance will include details on what companies can exclude from assessment.

### Update 12: Worked example for completing Sub-step 1b

<b>Key action for companies</b>	Use worked example to help guide your Step 1b process
<b>Cross-reference to Initial Guidance</b>	Pages 26-27 (Illustrative example of the Step 1 assessment phase)

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Building upon the example presented in Update 10, Table 7 shows a subset of the form for direct operations. Importantly this provides materiality scores recorded at the sector-level (as derived from the Sectoral Materiality Tool, and shown previously in Table 5) and adds the company-level scores, together with a justification for any company-level score that differs from sector-based scores. The example presents a subset of results for direct operations. Forms for upstream and downstream would look the same and be filled out separately.

Templates suitable for completing sub-steps 1a and 1b (information for both sub-steps is collected through the same form) are provided in Annex III. Examples of the types of pressures within each pressure category, as provided in the Sectoral Materiality Tool, are included in Annex IV.

Table 7: Example initial list of potential material pressure categories from Sub-steps 1a and 1b, showing sectoral-level and company-level pressure scores for a subset of direct operations. Forms for upstream and downstream would be completed separately.

INITIAL LIST OF POTENTIAL MATERIAL PRESSURE CATEGORIES: DIRECT OPERATIONS					
Pressure category	ISIC Class	Production process	Materiality score at sector-level (Sub-step 1a)	Materiality score at company-level (Sub-step 1b)	Justification (for company-level score)
Terrestrial ecosystem use	Growing of beverage crops	Small-scale irrigated arable crops	VH	VH	
	Growing of beverage crops	Large-scale irrigated arable crops	VH	VH	
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	ND	ND	Requires further investigation.
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND	VL	Considered to be VL because the company only has one small store within a shopping center environment.
Freshwater ecosystem use	Growing of beverage crops	Small-scale irrigated arable crops	H	H	
	Growing of beverage crops	Large-scale irrigated arable crops	VH	VH	
	Manufacture of soft drinks; production of mineral waters and other bottled waters	Processed food and drink production	ND	ND	Requires further investigation
	Retail sale of beverages in specialized stores	Infrastructure holdings	ND	ND	Requires further investigation

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## Summary of Sub-steps 1a and 1b

**Table 8: Overview of Sub-steps 1a and 1b**

The purpose of Step 1 is identifying the broadest scope of corporate impacts that should be managed through targets. The step begins with high-level sector assessment, moves on to refine these results by exploring the company-level, and will conclude with the value chain hotspot assessment in Sub-step 1c.

Sub-step	Purpose	Description	Inputs from the company	Outputs for the company	Guidance available from SBTN
1a. Sector-level materiality assessment	<p>At the sector-level, use available tools to rapidly identify important issue areas and pressures for target setting.</p> <p><i>Note: The approach presented in this update is to use the Sectoral Materiality Tool (which replaces the Materiality Matrix). However, other tools may also be adopted, and several suitable options are listed in the Toolbox in the Initial Guidance.</i></p>	<p>Rapid screening using standard qualitative materiality classification criteria, available in tools such as the <i>Sectoral Materiality Tool</i>, to identify nature-related issue areas and pressure categories potentially relevant for your company.</p> <p><i>Note: Since many of the tools available for a materiality assessment are based upon average data for a sector, the results provide a guide only, with the results refined and reviewed through Sub-steps 1b and 1c.</i></p>	<p>Company must know: - Which sector / industry their activities fall into according to a standard classification.</p> <p><i>Note: In this update sectoral categories for the Sectoral Materiality Tool are taken from the International Standard Industrial Classification of All Economic Activities (ISIC) from the UN.</i></p>	<p>Draft list of potential material pressure categories.</p>	<p><a href="#">Update 6: Drawing the boundaries of assessment: direct operations, upstream and downstream</a></p> <p><a href="#">Update 7: Economic activity/sector classification scheme changing from GICS to ISIC</a></p> <p><a href="#">Update 8: Sectoral Materiality Tool</a></p> <p><a href="#">Update 9: Assessing downstream impacts</a></p> <p><a href="#">Update 10: Worked example for completing Sub-step 1a</a></p>
1b. Company-level refinement	<p>Considering the entirety of a company's operations, identify any potential nature-related issue areas and pressure categories that have been previously overlooked or inadequately evaluated when using standard tools.</p> <p><i>Note: This sub-step also serves as a gap analysis of existing assessments (if any have been done).</i></p>	<p>Review and refinement of the results from Sub-step 1a, identifying any key nature-related issues areas and pressure categories specific to your company that may not have been sufficiently evaluated or identified in Sub-step 1a. A justification should be recorded to explain any changes in the pressure score, which can result in new pressures or exclusion of pressures identified in Sub-step 1a.</p> <p><i>Note: Since the tools available to support the materiality assessment in Sub-step 1a often rely upon average sector-level data, this Sub-step provides an important opportunity to identify any previously overlooked issue areas and record additional material pressure categories.</i></p>	<p>Specific assessments of material issue areas not covered by generic tools, or not covered with sufficient detail.</p>	<p>Initial list of potential material pressure categories.</p>	<p><a href="#">Update 11: Expected company tasks in Sub-step 1b</a></p> <p><a href="#">Update 12: Worked example for completing Sub-step 1b</a></p>

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## Key recommendations for action

### Recommendations

There are several no-regrets actions that companies should take today:

#### 1. Complete Sub-steps 1a and 1b

The best action you can take is to get started. Visit the [Members Only](#) section of the SBTN website to download the Sectoral Materiality Tool and kick-off Sub-step 1a. Don't forget to use the templates in Annex III to help you record what you find. Future guidance on assessing downstream activities as well as further guidance on dependencies will be designed to integrate into the processes already outlined here.

#### 2. Prepare your data

Setting SBTs for nature requires a solid oversight of both your upstream and downstream value chains. See [Update 5](#) for how you can start preparing the data you will need now.

#### 3. Set targets where suitable methods exist

Target-setting methodologies already in place include: (i) for climate through the [Science-Based Targets Initiative](#), (ii) for ecosystem integrity, specifically on working lands using [regenerative agricultural practices](#) in line with the European Commission, and (iii) for land use change, specifically deforestation and conversion, using the [Accountability Framework Initiative](#). See Section 2.2.4 of the Initial Guidance for more details. SBTN's freshwater target setting methods will also be available at the end of this year and we encourage you to trial them once published.

#### 4. Share your experiences and learn from others

There are lots of opportunities to share and learn via the Corporate Engagement Program. Join our monthly CEP Sessions, provide feedback on target development via our surveys and polls, and help us develop advice and case studies based on your experiences. Visit the Members section of the website or email [corporate-engagement@sciencebasedtargetsnetwork.org](mailto:corporate-engagement@sciencebasedtargetsnetwork.org) to find out more.

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Thank you for taking the time!

## Annex I. Glossary of key terms and concepts

### Assessment/accounting boundary

The boundary that defines which part or parts of a business are included in an assessment

The [GHG Protocol Corporate Standard](#) (2004) takes two different approaches to accounting for impact

- *Organizational boundary setting* = determine which business activities are included in assessment, based on equity share or financial control
- *Operational boundary setting* = determine which impacts to report on related to activities in Scope 1, Scope 2, and Scope 3

Similarly, the Natural Capital Protocol (2016) takes a staged approach to natural capital impact assessment in their “Step 3,” which includes:

- 1. Determining organizational focus: (a) corporate, (b) project, (c) product
- 2. Determining the value chain boundary: upstream, direct operations, and/or downstream

### Biological Diversity Protocol

The Biological Diversity Protocol (BDP) improves decision making by providing companies with an accounting and reporting framework which helps consolidate their biodiversity impact data across value chains and jurisdictions. With the help of the BDP, companies can now develop their biodiversity impact inventory and the associated Statements of Biodiversity Position and Performance for various applications, from site or project management to disclosure. In addition, adhering to the accounting and reporting principles of the BDP helps ensure that biodiversity impact data is presented in a standardised, comparable, credible and unbiased manner.

### Business activities

Relevant to different product elements, and different locations; can span the entirety of a company’s value chain.

*Based on the Natural Capital Protocol and Greenhouse Gas Protocol.*

### Data Readiness Guide

A guidance document to assist companies with the data collection required for Step 1. This will be developed in partnership with CEP companies to help address their key challenges and will be available by the end of 2021.

### Dependencies

Aspects of nature’s contributions to people that a person or organization relies on to function, including water flow and quality regulation; regulation of hazards like fires and floods; pollination; carbon sequestration.

*Based on the Natural Capital Protocol.*

### Direct operations

See **Value chain**.

### Downstream

See **Value chain**.

### Goal

High-level statement of ambition, including a time frame.

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### **Greenhouse Gas Protocol**

The Greenhouse Gas (GHG) Protocol establishes comprehensive global standardized frameworks to measure and manage greenhouse gas emissions from private and public sector operations, value chains and mitigation actions.

### **Indicator**

Specific metric by which a **target** is measured. The measurement instrument, often referred to as “Key Performance Indicator” (KPI).

### **Input**

Purchased or otherwise sourced by the target setting entity in order to make products/provide services

### **Issue areas**

See **Nature-related issue areas**.

### **Life cycle assessment**

Life cycle assessment (LCA) is a cradle-to-grave or cradle-to-cradle analysis technique to assess environmental impacts associated with all the stages of a product's life, which is from raw material extraction through materials processing, manufacture, distribution, and use.

### **Location**

Sites (space that is directly occupied by the companies and/or its activities, e.g., a corporate building or mine) + adjacent ‘scapes’.

### **Materiality**

Issues which are “material” are those which should influence decision making processes, or have the potential to do so. Issues found to be material should be included on the inventory of impacts, accounted for in corporate target setting and action, as well as disclosure.

- **Societal Materiality**

The significance of a company’s environmental impacts and/or dependencies related to its operations and value chains, in terms of their consequences for meeting societal goals for nature. The level of materiality may vary across different locations in space and different lines of business. Parameters used to understand significance (e.g., time frame, geographic distribution, potential severity) should correspond to societal preferences.

- **Financial Materiality**

Societal materiality can be understood in contrast to financial materiality. Issues which are financially material have the ability to influence revenue generation, costs, capital efficiency or risks that a company faces today or in the future. Financially material issues will affect the value of the company’s equity or borrowings. Issues which are material from a societal perspective may become financially material, both in the short and long term.

### **Materiality matrix**

See **Sectoral materiality tool**.

### **Natural Capital Protocol**

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The Natural Capital Protocol (NCP) is a decision-making framework that enables organisations to identify, measure, and value their direct and indirect impacts and dependencies on natural capital.

### **Nature-related issue areas (for target setting)**

The environmental issues (e.g., pressures on nature) or aspects (e.g., related to the state of nature) on which companies will set SBTs as part of the SBTs for nature framework. These 'issue areas' are generally specific to a realm and correspond to societal goals or targets under the UN CBD, UNCCD, UNFCCC, and SDGs, and are subsets of the high level target categories. For instance, the target category 'pollution' can be broken down into three issue areas, by realm: soil pollution, water pollution, and marine pollution.

### **Pressure category**

Pressure categories each correspond to a specific impact driver, which is defined as a measurable quantity of a natural resource that is used as an input to production or a measurable non-product output of business activity, in accordance with the Natural Capital Protocol (Natural Capital Coalition, 2016).

### **Prioritization**

A process which allows companies to determine where to act, which issues to address, which objectives—environmental, social or economic—to support, and to begin planning for what types of action. Step 1 & 2 cover where to act, which issues; Step 4 covers which objectives are addressed by which actions and what types of action.

### **Product**

A good or service offered or performed by the target setting entity.

### **Sectoral Materiality Tool**

The SBTN Sectoral Materiality Tool, which replaces the materiality matrix introduced in the Initial Guidance, presents materiality ratings for 12 impact categories, themselves grouped by nature-related issue areas, as defined by IPBES (land/water/sea use change, resource exploitation, climate change, pollution and invasives & other). Previously, the ratings had been given for the Global Industry Classification Standard (GICS), at the sector and sub-industry levels. The latest version of the tool (version 2, August 2021) has been translated into a new industry classification, the International Standard Industrial Classification of All Economic Activities (ISIC), at the class level.

The aim of the sectoral materiality tool is to help users to do a first screening of what activity is potentially materially relevant to their sector and their firm's activities, as part of Sub-step 1a of the SBTN guidance.

### **Service**

Any deed, performance, or effort carried out for a recipient.

### **Site(s)**

Operational locations within a company's value chain/spheres of control and influence (including direct operations). Sites can include operations from any phase of a product's life cycle, from extractive operations (e.g., mines), material processing (e.g., mills), production facilities (e.g., factories), logistics facilities (e.g., warehouses), wholesale and retail (e.g., stores), and recycling/end of life (e.g., material recovery).

### **Sphere of control / sphere of influence**

To achieve societal goals for nature, action within and beyond the corporate value chain is necessary. This reality is described as the four spheres of corporate influence, expanding from direct control over direct operations, out to spheres of influence, including the value chain (upstream and downstream), areas or

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landscapes adjacent to business activities, and the economic and social systems in which businesses are embedded. Companies setting SBTs will be expected to take action to control their negative impact and increase their positive contributions to nature and society throughout all four spheres.

### **Systems**

Covers the broadest extent of corporate influence - through direct and indirect channels - on socioeconomic and socio-ecological systems (e.g., the financial system, influenced through corporate disclosures of environmental risk; the food system, influenced by corporate agricultural practices; and the systems related to marine ecosystem use and governance, influenced by companies through lobbying practices).

### **Target**

Quantitative and time-bound objective, preferably with defined measurement. The desired value of performance (over time), stating the level of performance a company wants to achieve.

### **Upstream**

See **Value chain**.

### **Value chain**

A series of activities, sites, and entities, starting with the raw materials and extending through end-of-life management, that (a) supply or add value to raw materials and intermediate products to produce final products for the marketplace and (b) are involved in the use and end-of-life management of these products. The value chain can be divided into upstream and downstream sites/activities.

*Based on the Biological Diversity Protocol, Natural Capital Protocol and GHG Protocol.*

#### **Upstream**

Covers all activities associated with suppliers, e.g., production or cultivation, sourcing of commodities of goods, as well as transportation of commodities to manufacturing facilities.

#### **Direct operations**

Covers all activities and sites (e.g., buildings, farms, mines, retail stores) over which the enterprise has operational or financial control. This includes majority owned subsidiaries.

#### **Downstream**

Covers all activities that are linked to the sale of products and services produced by the company setting targets. This includes the use and re-use of the product and its end of life to include recovery, recycling and final disposal.

### **Value chain-adjacent**

Covers the landscapes, seascapes, and watersheds that are geographically adjacent to value chain sites.

## Annex II. Sectoral materiality tool scores and data sources

The sectoral materiality tool gives five possible scores of Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL), and when there is not enough information for a score to be determined, the cell reads ND for “No data.” For direct operations, scores were assigned for *Frequency*, *Timeframe*, and *Severity* based on information in the ENCORE impacts database:

- Frequency can be high (continuous impact), medium (regular impact), or low (impact happening small number of times)
- Timeframe can be <1 year (impact within a year), 1-3 years (impact happen between 1 and 3 years), >3 years (impact happening more than 3 years after the production process)
- Severity can be high (irreparable, long-lasting damage), medium (significant, lasting damage) or low (reparable and temporary damage).

Each category of the above criteria was assigned a value of 1-3 as follows:

- Frequency: High = 3, Medium = 2, Low = 1
- Timeframe: <1 year = 3, 1-3 years = 2, >3 years = 1
- Severity: High = 3, Medium = 2, Low = 1

By summing these numerical values, a score is derived for each criterion. This is used to assign the resulting rating from Very Low to Very High. Following this approach, there are seven possible combined scores, which are assigned ratings as detailed below:"

Score	Rating
3	VL
4	L
5	L
6	M
7	H
8	H
9	VH

### Data sources

- Upstream ratings were assigned using EXIOBASE data and ENCORE materiality ratings aggregated to the GICS Sector level (in order to be compatible with EXIOBASE).
- For direct operations, ratings are based on the scientific and grey literature collated for the development of the ENCORE impacts database. These ratings were ranked on 3 dimensions: Frequency, Timeframe, and Severity, again based on information in the ENCORE impacts database
- Downstream ratings are still under development.

## Annex III: Output templates for completing Sub-step 1a Sector-level materiality assessment and 1b Company-level refinement.

Versions of these templates in Excel format are available [here](#).

INITIAL LIST OF POTENTIAL MATERIAL PRESSURE CATEGORIES: UPSTREAM					
Pressure category	ISIC Class	Production process	Materiality score at sector-level (Sub-step 1a)	Materiality score at company-level (Sub-step 1b)	Justification (for company-level score)
Terrestrial ecosystem use					
Freshwater ecosystem use					
Marine ecosystem use					
Water use					
Other resource use (e.g. extraction of fish, timber)					
GHG emissions					
Non-GHG air pollutants					
Water pollutants					
Soil pollutants					
Solid waste					
Disturbance					
Biological alterations/interferences					

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INITIAL LIST OF POTENTIAL MATERIAL PRESSURE CATEGORIES: DIRECT OPERATIONS					
Pressure category	ISIC Class	Production process	Materiality score at sector-level (Sub-step 1a)	Materiality score at company-level (Sub-step 1b)	Justification (for company-level score)
Terrestrial ecosystem use					
Freshwater ecosystem use					
Marine ecosystem use					
Water use					
Other resource use (e.g. extraction of fish, timber)					
GHG emissions					
Non-GHG air pollutants					
Water pollutants					
Soil pollutants					
Solid waste					
Disturbance					
Biological alterations/interferences					

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INITIAL LIST OF POTENTIAL MATERIAL PRESSURE CATEGORIES: DOWNSTREAM					
Pressure category	ISIC Class	Production process	Materiality score at sector-level (Sub-step 1a)	Materiality score at company-level (Sub-step 1b)	Justification (for company-level score)
Terrestrial ecosystem use					
Freshwater ecosystem use					
Marine ecosystem use					
Water use					
Other resource use (e.g. extraction of fish, timber)					
GHG emissions					
Non-GHG air pollutants					
Water pollutants					
Soil pollutants					
Solid waste					
Disturbance					
Biological alterations/interferences					

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## Annex IV: Examples of pressure category indicators

Please note companies are not expected to carry out extensive measurement and new research during Step 1b. These examples are provided to give an understanding of the types of pressures covered by each category when assessing its materiality.

Nature-related issue area	Pressure category	Examples of indicators
Land/Water/Sea Use Change	Terrestrial ecosystem use	Area of agriculture by type, area of forest plantation by type, area of open cast mine by type, etc.
	Freshwater ecosystem use	Area of wetland, ponds, lakes, streams, rivers or peatland necessary to provide ecosystem services such as water purification, fish spawning, areas of infrastructure necessary to use rivers and lakes such as bridges, dams, and flood barriers, etc.
	Marine ecosystem use	Area of aquaculture by type, area of seabed mining by type, etc.
Resource exploitation	Water use	Volume of groundwater consumed, volume of surface water consumed, etc.
	Other resource use	Volume of mineral extracted, volume of wild-caught fish by species, number of wild-caught mammals by species, etc.
Climate Change	GHG emissions	Volume of carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), Sulphur hexafluoride (SF <sub>6</sub> ), Hydrofluorocarbons, (HFCs) and perfluorocarbons (PFCs), etc.
Pollution	Non-GHG air pollutants	Volume of fine particulate matter (PM2.5) and coarse particulate matter (PM10), Volatile Organic Compounds (VOCs), mono-nitrogen oxides (NO and NO <sub>2</sub> , commonly referred to as NO <sub>x</sub> ), Sulphur dioxide (SO <sub>2</sub> ), Carbon monoxide (CO), etc.
	Water pollutants	Volume discharged to the receiving water body of nutrients (e.g., nitrates and phosphates) or other substances (e.g., heavy metals and chemicals).
	Soil pollutants	Volume of waste matter discharged and retained in soil over a given period.
	Solid waste	Volume of waste by classification (i.e., nonhazardous, hazardous, and radioactive), by specific material constituents (e.g., lead, plastic), or by disposal method (e.g., landfill, incineration, recycling, specialist processing).
Invasives and Other	Disturbances	Decibels and duration of noise, lumens and duration of light, at site of impact.
	Biological alterations/interferences	Number of non-native and invasive animals or plants released by species, area of agriculture with genetically modified organisms or reduced genetic diversity, number of animals at risk of catching cattle-transmitted disease by species, etc.

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