SCIENCE BASED TARGETS NETWORK
GLOBAL COMMONS ALLIANCE

SBTN Validation Pilot Summary Report

September 2024

Version History

Version	Update description	Release Date	Effective Dates
1.0	Initial release of Pilot Summary Report	July 2024	Sept 2024
1.1	Incorporated additional sections and restructured for clarity: - Pilot outcomes - Corporate case studies - Strategic insights & Benefits of Target-setting integrated	Sept 2024	Indefinite

Letter from the Pilot Validation Director

Dear Reader,

We are deeply grateful to our pioneering companies, supporting consultancies and NGO partners for their participation in the validation pilot for the first corporate science-based targets for nature. This has been an enriching learning experience for everyone involved throughout the network.

This report provides an overview of the pilot, key outcomes, strategic insights and detailed learnings, and case studies from participating companies.

By definition, science-based targets for nature are ambitious; focusing on place-based action where nature needs it most. Informed by the insights from the pilot, SBTN released updated technical guidance in July 2024, which served to strengthen companies' confidence in prioritizing areas for action, improved interoperability with related frameworks, provided additional tools and resources, and overall increased the clarity of the methods. These updates reinforce the overall outcome from the pilot: SBTN is closing a critical gap in corporate sustainability by equipping companies with a clear and credible pathway to take ambitious action for nature.

The pilot successfully provided companies with a valuable test-and-learn opportunity to engage in the target-setting process in an integrated way for the first time. The majority of participating companies successfully validated some or all of their targets and, while some used the pilot as a chance to gain insights for future commitments, others are now preparing to publicly disclose and adopt their targets.

Target validation is an essential part of the target-setting process. An independent expert review process checks companies' compliance against requirements to ensure their targets are robust and in line with what science requires. Ultimately, this supports the public claims companies can make once their targets are successfully validated. Another key outcome of the pilot was our recent announcement that the Global Commons Alliance's Accountability Accelerator will host the validation of the new targets. This move has been welcomed by the corporate sustainability community as a vital step in safeguarding the integrity of the targets.

As we turn towards the development of the next generation of targets, we will continue to develop a validation process that supports SBTN's mission: empowering companies to operate within environmental boundaries, meeting society's needs while making quantifiable and science-based contributions toward a nature-positive future.

Thank you for your interest and support in our validation pilot!

Paola Delgado Luna
Target Validation Director
Accountability Accelerator

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1. Introduction

The Science Based Targets Network (SBTN) released the first corporate science-based target setting methods for nature in May 2023[1]. This novel release from SBTN equipped companies to assess and prioritize their environmental impacts and to set freshwater and land targets. This enables companies to both reduce their negative impacts and move towards nature-positive outcomes.

Pilot overview

To set and implement science-based targets, companies must first have them validated. Validation is an independent process involving expert review to ensure the integrity of the target(s). Companies with validated targets meet all requirements outlined in the methods and are aligned with what science requires.

In May 2023, a target validation pilot commenced with a group of 17 trailblazing companies. The pilot companies were required to prepare and submit freshwater and land targets for validation in alignment with the 2023 versions of the methods. The scope of the pilot validation included the following steps:

> *SBTN's target setting methodology increases ambition and drives action:*
>
> *"Piloting science-based targets for nature has helped us identify areas where we can strengthen our existing climate focused initiatives … to better respond to nature-related risks and opportunities across our value chain"*
>
> *– piloting company*

- Step 1: Assess – companies screen their portfolios of economic activities for materiality and then estimate contributions toward key issues through an assessment of pressures and states/impacts associated with each category of activity
- Step 2: Interpret and prioritize – companies identify the locations where action is needed most urgently for nature and people and then prioritize locations based on other factors (e.g., strategic importance)
- Step 3: Measure, Set, Disclose- Target-setting methods for land and freshwater pressures, which are key drivers of biodiversity loss and climate change

Companies first completed Steps 1 and 2 and then submitted their targets for validation in February-March 2024.

Objectives

The objectives of the pilot were to:

1. *Test validation requirements:* ensuring these are clear, feasible, robust and ambitious before a broader roll-out

2. *Test validation processes and resources*: including interaction with companies, use of submission forms and templates, development of validation reports and fine-tuning of claims guidance

3. *Inform the investigation of alternative validation models*: including validation governance and companies' target-setting journey

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[1] In July 2024, SBTN released updated methods

4. *Learn about the effort, resources and skills needed:* for companies, for the validation team and for supporting groups

This pilot summary report shares learnings from the pilot, particularly for objectives one and four, which have been used in the optimization of validation requirements and have served as a basis to inform best practices for companies.

2. Validation pilot overview

Pilot company overview

SBTN publicly invited companies to apply to join the initial target validation group from January 6 – February 3, 2023, and received applications from 55 companies across 26 countries. There were three criteria for selection:

1. *Readiness:* Degree to which company believes it has appropriate data as specified in the methods, technical capacity, understanding of the methods, and C–Suite and internal business support

2. *Representativeness:* Covering sector, geography of target-setting and value chain position

3. *Impact on nature:* Potential to have a positive impact on nature

> *Pilot companies have told us that SBTN's methods bring credibility: "We want our targets to be backed by science. We would recommend that organizations do SBTN because it gives credibility to the company. It is not a target that is set with your finger in the air – the methodology is robust, logical and prescriptive."*
>
> *– piloting company*

The details of the initial group of companies selected to be involved in the pilot are described in the table below.

Table 1. Validation pilot company overview

Company	Sector	Value chain	HQ location
AB InBev	Food and Beverage Processing	Midstream	Belgium
Alpro (Danone)	Food and Beverage Processing	Midstream	Belgium
Bel	Food and Beverage Processing	Midstream / Upstream	France
Carrefour	Food and Staples Retailing	Downstream	France
Corbion	Chemicals	Midstream	Netherlands
GSK	Pharmaceuticals, Biotechnology and Life Sciences	Midstream	United Kingdom
H&M	Textiles, Apparel, Footwear and Luxury Goods	Downstream	Sweden
Hindustan Zinc Limited (Vedanta)	Mining - Iron, Aluminum, Other Metals	Upstream	India
Holcim	Construction Materials	Upstream	Switzerland
Kering	Textiles, Apparel, Footwear and Luxury Goods	Downstream	France

Company	Sector	Value chain	HQ location
L'Occitane	Consumer Durables, Household and Personal Products	Midstream	Switzerland
LVMH	Textiles, Apparel, Footwear and Luxury Goods	Downstream / Upstream	France
Neste Corporation	Energy	Upstream	Finland
Nestle	Food and Beverage Processing	Midstream	Switzerland
Suntory Holdings Limited	Food and Beverage Processing	Midstream	Japan
Tesco	Food and Staples Retailing	Downstream	United Kingdom
UPM	Forest and Paper Products - Forestry, Timber, Pulp and Paper, Rubber	Upstream	Finland

SBTN's pilot validation team structure

THE TARGET VALIDATION TEAM

SBTN convened a specialized team to validate pilot company submissions against existing SBTN methods. This team is referred to in this report as the Target Validation Team (TVT) and consisted of five members: four staff seconded from professional services firms, and one director with validation expertise. The team has also designed validation materials and processes, and documented learnings throughout the pilot.

ADDITIONAL SUPPORT TEAMS

In addition to the TVT, other SBTN-related bodies and individuals performed select duties in relation to the SBTN pilot program.

SBTN's Technical Team and the Land and Freshwater hubs answered questions about the Step 1, 2 and 3 methods and worked with the validation team to resolve any validation related issues. Anonymized pilot learnings were shared with the broader SBTN technical development community to be incorporated into method revisions and future method development.

3. Pilot outcomes

Summary

The pilot provided companies with a valuable test-and-learn opportunity to engage in the target-setting process in an integrated way for the first time. This section outlines the outcomes of the pilot, detailing companies' progression through the steps and the number of validated targets.

Overall, the results demonstrate that science-based targets for nature offer a credible pathway for companies to take ambitious action for nature, with the majority of participating companies receiving validation for some or all their targets. While some companies used the pilot as a chance to gain insights for future commitments, others are now preparing to publicly adopt their targets.

Of the 17 companies that entered the pilot, nearly 90% of companies were able to complete Step 1 & 2 for their selected organizational boundary, and 71% completed targets for step 3. Among those that completed Step 3 for freshwater, 83% received approval for at least one target, while 78% of the companies that completed Step 3 for land (covering all the required targets) received approval on all three targets.

Detailed outcomes

Table 1. Companies' progression through the pilot (n=17 participating companies)

17	15	12	9	10	7
Companies participated in the pilot	Companies completed Steps 1 and 2	Companies completed Step 3 for one or more freshwater targets	Companies completed Step 3 for all required land targets*	Companies received validation on one or more freshwater targets	Companies received validation on all required land targets*

* SBTN's Land Method requires companies to set all three land targets or a subset depending on materiality and sector-eligibility.

Important note: Considering that the main objective in the pilot was to learn from companies' implementation of the methods and the validation process, companies were allowed to make partial submissions, meaning that the company perhaps didn't complete the entirety of the tasks outlined in the methods, but submitted its progress for review by the validation team. To obtain validation of science-based targets, companies must ensure they make full submissions (all minimum requirements completed and validated).

What do these numbers mean?

1. **Most companies were able to complete Steps 1 to 3 of the SBTN Framework**

- **Step 1 and 2:** Most companies completed these steps (88%); two companies made partial submissions.

- **Step 3 – Freshwater:** Most companies completed Step 3 for freshwater (71%); one company made a partial submission.
- **Step 3 – Land:** About half of the companies completed all required targets (53%); five companies made a partial submission or did not submit one or two of the required targets.

2. **About 60% of the participating companies obtained approval from the validation team on freshwater and/or land targets**

- **Freshwater targets:** Of the 12 companies that completed one or more freshwater targets, 83% obtained approval of one or more.
- **Land targets:** Of the 9 companies that completed all required land targets, 78% obtained approval of all.

Table 2. Breakdown of submitted targets (n=71 targets submitted)

	Freshwater quantity	Freshwater quality	No Conversion of Natural Ecosystems	Land Footprint Reduction	Landscape Engagement	Total
Submitted targets	20	15	8	7	21	71
Approved targets	18	6	7	6	11	48
Approval rate	90%	40%	88%	86%	52%	67%

What do these numbers mean?

3. **SBTN reviewed 71 targets during the validation pilot with worldwide impact**

Piloting companies demonstrated extraordinary effort by preparing and submitting these targets for validation for the first time. This effort involved various teams within the companies and their supporting partners. Similarly, SBTN's dedicated significant resources to the pilot.

Companies worked on science-based targets for freshwater (both for direct operations and upstream) in **Bangladesh, Brazil, France, Germany, India, Italy, Japan, Mexico, Mongolia, Thailand and USA**. Companies investigated landscape initiatives in **Argentina, Canada, France, India, Indonesia, Japan, Mongolia, South Africa, Spain, UK and USA**. In total, this spans 17 countries where these companies are or could be positively contributing to.

4. **Freshwater targets: Success rate is higher for freshwater quantity targets compared to freshwater quality targets**

The higher success rates for freshwater quantity targets may be explained by two contributing factors:

- Data availability and quality is better for freshwater withdrawals compared to data on nutrient pollution (N,P)
- There is more information and local expertise on freshwater quantity models and thresholds

5. **Land targets: companies were able to obtain approval on the no conversion of natural ecosystems and land footprint reduction targets despite traceability challenges**

Despite the limited traceability seen in the pilot for upstream activities and commodities, companies obtained validation for their No Conversion of Natural Ecosystems and Land Footprint Reduction targets. This was possible thanks to the flexibility of the targets to gain more traceability overtime (and no later than the target date).

With respect to landscape engagement targets, some companies failed to fulfill two essential minimum requirements to engage/establish a robust landscape initiative:

- Every landscape or jurisdictional approach must operate at the scale of a recognized ecological area (such as watershed or land ecosystem) or administrative area (such as states, provinces, municipalities, districts); when the landscape boundary is stakeholder defined (i.e., the boundaries do not equal any ecological area or administrative area), the recommended size is >10,000 Ha
- The visions and needs of relevant stakeholder groups must be included in the design, implementation, and monitoring of an initiative; at least three stakeholder groups participated in one or more phases of the landscape initiative

Companies must follow the guidance in the Landscape Initiative Roadmap to improve the maturity and reach of all minimum requirements over time.

Target adoption: Companies have six months to publicly disclose their approved targets

Per SBTN validation requirements, companies intending to publicly disclose their approved targets have six months (until January 10, 2025) to do so. Companies disclosing these targets are required to comply with SBTN's Claims Guidance, which includes specific conditions for companies that participated in this pilot.

Interviews conducted by an independent consultant during the pilot revealed that, while some piloting companies are not yet ready to publicly adopt their validated targets, they remain committed to continuing the learning process with SBTN with the goal of eventually setting targets.

Of these companies, several common factors influenced their decision not to proceed with target adoption. Some viewed the pilot solely as a test and learn opportunity to gain insights for future commitments, while others sought additional guidance from SBTN including implementation and sector-specific guidance. Internal challenges, such as data availability and resource limitations, also affected progress, as seen by the companies that were only able to provide partial submissions.

4. Strategic insights

With support from interviews conducted by the Boston Consulting Group (BCG) and additional research, SBTN gathered strategic insights from the pilot to help inform the next generation of targets.

Key benefits of target setting

Throughout interviews, companies, consultancies, and NGO partners highlighted key benefits of target-setting as they progressed through the pilot; reinforcing that SBTN is closing a critical gap in corporate sustainability:

INCREASES AMBITION AND DRIVES ACTION ON NATURE; CREATING CHANGE TO OUTLIVE LEADERSHIP TRANSITIONS

- *"We now know where to focus our efforts and where action is needed most. SBTN allowed us to move from improvements based on only our own experience to targets that we know are good enough for the planet."*

- *"The SBTN No conversion target has raised the bar on sustainable sourcing, and our sustainable sourcing program will evolve over time to meet SBTN's best practices."*

- *"This was a mindset shift, and it was transformative on its own, especially if you are a company at the beginning of your journey."*

- *"SBTN has had a tremendous change because our water ambition has a lot of legacy in it… it was always driven by reduction, metric efficiency, and regulation, not eutrophication."*

LEADS TO STRATEGIC DISCUSSIONS ACROSS BUSINESS FUNCTIONS AT A LEADERSHIP LEVEL; GENERATING VALUE

- *"Returns should be thought of from the decision-making perspective … SBTN's assessment helped in conversations about capital allocation and procurement, and there is benefit in that."*

- *"SBTN also gave us an opportunity to build our strategy in a much more holistic way. We are no longer carbon only–it is super important to integrate all the topics of nature."*

- *"The target setting-process initiated discussions, highlighted gaps and raised ambition."*

PROVIDES CREDIBILITY AND A COMMON LANGUAGE TO ADVANCE ENGAGEMENT WITH STAKEHOLDERS

- *"The investors are asking for this. The extended stakeholders are waiting for it."*

- *"SBTN really provides that valuable framework for us to package our plans in the right way, so that we have one common language as well when we talk about it."*

> - *"Leadership knows about carbon and setting climate targets–the next phase is to extend it to other nature spaces and SBTN is providing this framework to enable us to set the right targets that are informed by science."*
>
> - *"We chose to join to really give robustness to the nature strategy we have and confirm that we are acting on the right topics at the right scale."*
>
> - *"We engaged with SBTN because it is science–based, and it really helped give us a north star."*
>
> - *"Close to 100% of the companies we work with are using SBTN… companies are attracted to SBTN because of the science–based argument. SBTN's framework is well developed … and with SBTN everything needs to be included in your assessment."*

Striking the balance between feasibility and scientific rigor for maximum impact

While companies gained significant value from the piloting experience, some challenges around the feasibility and complexity of the target validation requirements were noted. Following the publication of SBTN's strengthened methods in July 2024, SBTN continues to respond to adapt and improve feasibility and practicality while maintaining scientific rigor.

To help companies measure the environmental impacts of their operations and supply chains and to help guide them in taking the right landscape-level actions (i.e. how much, where, by when), SBTN considers three key KPIs: **rigor, feasibility and reach**.

SBTN measured progress against these KPIs throughout the pilot and identified strengths and challenges, as well as next steps, understanding that not all actions are within SBTN's control.

	Rigor	Feasibility	Reach
What strengths were demonstrated during the pilot?	- Science-based seen as leading strength for credibility - Almost all companies reported increased rigor in approach	- Of the 17 companies selected, 15 completed steps 1 & 2 and 12 completed step 3 targets - Helps companies be more prepared to respond to CSRD and other reporting frameworks	55 companies applied to participate, 17 companies selected 150+ companies preparing to set science-based targets for nature

What challenges remain?	• Current data and model availability, particularly at the local scale, impacted both the accuracy and feasibility of baseline estimates for science-based targets	• Comprehensive coverage of impacts and locations (i.e. target boundary concept in SBTN methods) makes it a challenging task to tackle all at once • Low traceability in supply chains (limited view to production / extraction sites of high-impact commodities)	• High barrier to entry for participants, including expertise, resources, time, and data that may not have previously been mobilized • Influence and accountability differ along the value chain and sector which can limit the implementation of SBTs • Further interoperability with other frameworks as they emerge including CSRD and TNFD
What is SBTN doing about it?	• Lowering barriers to data access through the development of tools and platforms, focusing particularly on local data and models • Building working databases to include the best and most available items, leveraging companies and partners for crowdsourcing	• Working with certification mechanisms to increase system-wide alignment • Developing additional guidance around requirements on traceability • Providing robust Claims Guidance for validated targets that help companies showcase progress, while enabling accountability	• Developed corporate manual, case studies and tools such as the Self-Assessment tool to help increase understanding and implementation • Continue engaging with sector and industry coalitions to understand specific environmental impacts and barriers to implementation • Updating "no regret" actions including exploring interim targets for less mature companies

RIGOR

Scientific rigor of target-setting is an important aspect for targets to be considered as gold standard and maintain credibility of "science-based".

The pilot demonstrated that "science-based" is a leading strength. Companies believe that they are increasing their credibility in signaling to investors, employees, customers, suppliers, and other stakeholders that they are taking water and land issues seriously. The rigor of the methodology provides a critical outside-in assessment, validating that action plans and targets are enough to make a real impact. Almost all companies reported a rise in ambition. Targets encouraged companies to prioritize issues not only on business priorities, but also on the state of nature and to reconnect with their upstream value chain.

> *"We embarked on this journey with SBTN because we wanted to understand our impacts better and make sure that the action plans and the targets we had were enough on a scientific basis. And if they weren't enough, we wanted to raise our ambition to meet what is needed."*

To rigorously measure impact on local ecosystems, the methods require a great deal of global and local data about the state of nature. For example, local freshwater models were difficult to identify. Even when global water models are a useful tool to set directionally meaningful targets based on the available science, it does not substitute the need for developing more accurate models that are locally developed. It is important to continue to find synergies with other frameworks and societal actors to create the conditions for their

development.

SBTN is lowering barriers to data access through the development of tools and platforms, focusing particularly on local data and models. For freshwater, this includes SBTN's upcoming Basin Threshold Tool: a working database to be populated with local freshwater models and thresholds. SBTN will also continue to collaborate with key partners to identify the best available databases including TNFD on its Nature-related Public Data Facility. In addition, SBTN will continue to improve the Natural Lands Map by adding new and more accurate local LULUC data as available.

FEASIBILITY

Setting targets is merely a step towards meaningful action. Thus, to ensure the greatest impact, it is essential that the methods are feasible as well as rigorous.

Companies acknowledged that completing the methods further improved understanding of the value chain, which forged stronger relationships with suppliers.

By definition, science-based target-setting is complex and data-intensive which caused additional challenges given the pilot's short timeframe. For example:

- Completing both freshwater and land (e.g., freshwater withdrawals, land use and land use change, etc.) in direct operations and upstream (multiple target boundaries) was a large volume of content for companies to tackle simultaneously. Many found success in taking a business unit (e.g., one brand) or geographic approach (i.e., France).
- To set targets, companies must improve their understanding of the value chain, diving into who their suppliers are and where they operate. Many downstream industries do not have this level of traceability into their supply chains (e.g., a grocer with many high impact commodities such as soy may not know exactly where all the producers were). SBTN will work to help identify systems-wide solutions to traceability.

As an outcome of the pilot, through its new Claim Guidance, SBTN has addressed feedback to provide more flexibility in the target-setting journey while ensuring accountability. This includes:

- SBTN now allows companies to publicly disclose their validated materiality assessment and prioritization work (Steps 1 & 2). This recognizes credible efforts while ensuring accountability as companies progress towards science-based targets. While SBTN's methods focus on corporate target-setting based on the best available science, this adjustment will help sustainability practitioners make the case internally ensuring top management buy-in.
- Companies are now permitted to set targets on a single realm, e.g. freshwater, even if that company has impacts on multiple realms. Each claim will be strictly limited to the related adopted target and reported on the target validation tracker along with that company's materiality impact assessment (Step 1) results, which shows a holistic picture of the company's environmental impacts.
- For freshwater targets, while SBTN encourages completion of target-setting for the entire target boundary, there is currently no obligation to do so. Companies may set as many or few freshwater targets as they choose to within a timeframe of their choice. These targets can be within direct operations, upstream, or both. Claims will be strictly limited to each adopted target.

- To address implementation challenges associated with the 2025 upstream zero conversion target within V1.0 of the Land Method, SBTN is introducing an alternative pathway that allows companies to progressively scale up their efforts towards achieving SBTN's full no-conversion target by 2030.

Overall, while companies gain more experience, gather data and secure resources to progress in their science-based target-setting journey, SBTN will take concerted steps to transparently disclose each company's progress. For example, SBTN's upcoming public target tracker data will include materiality assessment results and companies' target progression against target boundaries (e.g., basins covered under approved targets compared to the total number of basins in the company's freshwater quantity target boundary).

SBTN is further exploring ways to continue to help companies in building on the progress they have already made. For example, some companies have requested SBTN provide guidance on the alignment of certifications to science-based targets for nature. This would help companies demonstrate the progress they have already accomplished through their sustainability journey and help them plan their next steps for target implementation.

REACH

Companies are facing increasing pressure to act on nature, and setting science-based targets for nature are currently being driven by three core triggers:

- Regulatory pressure (e.g. EU regulation such as CSRD)
- Stakeholder pressure (e.g. actors in civil society, the investment and finance community and consumers)
- Operational motivation driven by high impact and dependencies

SBTN emerged from the pilot with strong momentum, with 55 companies applying for the pilot and over 150 companies preparing to set science-based targets for nature, representing around 10% of the potential market for SBTN.

Capitalizing on its momentum, SBTN continues to refine its approach on how to best serve the market, increase awareness and reduce barriers to entry in target setting. Due to company impacts being basin or landscape-based, SBTN's cumulative impact will be most effective if the number of companies are at a sufficient scale within a particular target geography.

Key barriers to setting science-based targets for nature include the need for deep knowledge of complex topics, large volumes of data, traceability across value chains, and close collaboration with stakeholders. SBTN's growing suite of resources such as the [Corporate Manual](#) is designed to make this technical topic more accessible for companies. In addition, to provide an entry point for companies who are working towards the necessary data readiness and maturity to set science-based targets for nature, SBTN will continue to develop no-regret actions including exploring new interim targets. These actions will be aligned with the best-available science - drawing from our current and upcoming implementation guidance - to ensure these preliminary actions have positive impacts on key nature indicators.

Differences in influence and accountability differ along value chains and sectors which can

present another barrier. For instance, upstream companies in mining or forest products face different experiences than consumer-facing companies in fashion or food retail. SBTN continues to engage with sector and industry coalitions to understand specific environmental impacts and implementation barriers.

Additionally, SBTN's methods help companies prepare for mandatory regulations such as the European Union's CSRD and TNFD's voluntary disclosure recommendations. To further support companies, SBTN is exploring opportunities to enhance interoperability.

Next steps

SBTN has been actively listening, has already made method changes with the release of updated methods in July 2024, and will continue to take actions to improve performance across the three key performance indicators (KPIs). SBTN is also committed to revisiting strategic priorities and its theory of change to ensure the greatest impact. This will include reviewing suggestions such as defining the expected pace at which companies should progress in their target-setting journey and addressing the fact that influence and accountability differ along the value chain. Overall, SBTN will continue to respond and adapt to improve feasibility and practicality while maintaining scientific rigor.

> *SBTN methods are a driver for traceability, but it will need a concerted effort:*
> *"We need more structured work in this space, to figure out the traceability. [...] It will put traceability throughout the value chain into focus for companies and industries."*
> *– piloting company*

It is important to note that SBTN cannot solve for these KPIs alone. Civil society and international communities can play an important role in closing gaps, for example around data and model availability. Companies can help play a role in increasing traceability through their supply chains. Consultancies can help make methods more accessible.

SBTN invites individuals and organizations already working on these topics to reach out to identify critical synergies. There is no time to waste, we need companies to start taking credible action, and we need to continue to build enablers.

5. Piloting company experiences

Additional case studies featuring pilot companies Carrefour, H&M, and Suntory can be found on SBTN's [website](#)*.*

Kering

> *"If you're not talking about systemic transformation or collaborative transformation for our industry, it's very hard to reach your own ambitions as a single company. We think there's so much promise and value in these methods to scale nature protection and restoration [in these methods]."*

CONTEXT AND MOTIVATION

Kering is a global luxury group that manages the development of a collection of renowned

Houses in Fashion, Leather Goods and Jewelry, crafting tomorrow's luxury in a sustainable and responsible way. Aligned with its long-time commitment to sustainability and environmental stewardship, Kering has been an active member of the Science Based Targets Network (SBTN) Corporate Engagement Program since its inception in 2020. Kering's involvement with SBTN also aligns with its Biodiversity Strategy, which Kering launched in 2020 with the aim of achieving a net positive impact on biodiversity by 2025. Participating in SBTN's pilot was a natural progression in Kering's journey. This step allowed the Group to deepen its engagement with SBTN, adopt the methods fully, and support the development of SBTN's target validation process.

WHAT THE COMPANY ACTUALLY DID AND HOW

For the SBTN pilot, Kering leveraged its in-house environmental impact assessment tool, the Environmental Profit and Loss account (EP&L), to assess upstream pressures on nature, contextualizing them with pressure-sensitive state of nature data (e.g., "water scarcity" for the "water use" pressure) and state of biodiversity data to prioritize locations for target setting. This data foundation enabled Kering to align with SBTN's scientific criteria and effectively identify priority locations for targets and actions. State of nature data was sourced from publicly available sources including SBTN's unified water risk assessment tool as well as various indicators from WWF's Biodiversity Risk Filter.

FINDINGS

Through the pilot, Kering has determined its first SBTN Freshwater targets, focusing initially on the Arno basin in Tuscany, where most of the Group's tanneries and suppliers' tanneries are located. These activities have significant potential to impact water withdrawals and quality. In alignment with SBTN's guidance, Kering's target is to reduce water use in this top-priority basin by 21% by 2030, scientifically based on the state of nature data (according to SBTN's Global Model), a reduction which goes beyond the Group's own withdrawals to include those of its suppliers. This target applies to both the Group's direct operations and its suppliers, enhancing Kering's collaborative efforts to reduce environmental impact. Kering is preparing to set similar targets for other material basins, as part of its strengthened water strategy which will be unveiled in the coming months.

In the pilot, Kering has worked towards the adoption of all 3 categories of targets covered in SBTN's Land methods:

- **No Conversion of Natural Ecosystems:** SBTN has provided an opportunity to strengthen Kering's existing Deforestation- and Conversion-Free commitments, which had been last updated in June 2023, notably to include more detailed land use change assessments associated with the Group's sourcing of leather.
- **Land Footprint Reduction:** To achieve the Group's land footprint reduction target of 3% by 2030, which goes beyond SBTN's requirements (0.35% per year), Kering will continue to increase the use of recycled materials, regenerative agriculture materials, and sustainable innovative materials. Kering has also been leveraging improved forecasting and inventory management, while scaling circular business models overall, to achieve a general reduction across all pressures on nature (including greenhouse gas emissions) through lower resource use.
- **Landscape Engagement:** Kering's landscape engagement targets aim to substantially improve ecological and social conditions in sourcing landscapes by 2030. Kering has leveraged its existing initiatives such as those in the Regenerative Fund for Nature, developed in collaboration with Conservation International, which the Group has been supporting since 2021. These initiatives focus on promoting regenerative practices and enhancing biodiversity in critical sourcing regions under the Group's biodiversity strategy targets. Landscape engagement targets validated by SBTN are the Good Growth

Company's Mongolia Regenerative Cashmere Project (342,000 ha), Olive Leaf's GRASS project, focused on sheep wool and leather in South Africa (300,000 ha), as well as the Organic Cotton Accelerator's Regenerative Cotton Project (53,500 ha) in India.

CHALLENGES

Setting freshwater quality targets has presented challenges due to SBTN's current focus on nitrogen and phosphorus pollution alone, coupled with limited water basin level data on nutrient pollution. Kering is actively exploring ways to enhance data availability and is continuing its water pollution reduction efforts, which already include other relevant pollutants beyond nutrients, notably through the Group's collaboration with the Zero Discharge of Hazardous Chemicals initiative and adherence to its standards.

Traceability is one of the fashion sector's main challenges and, similarly, one of the main challenges Kering faced in its SBTN journey was data collection across its long, complex, and diverse global supply chains. These supply chains also involve numerous artisanal suppliers and small-scale operations, with many tiers of suppliers separating Kering's Houses from raw material producers. This opacity is further enhanced by suppliers in fashion's supply chain traditionally not sharing information on raw material producers. This complexity and issues of visibility underscore the importance of the traceability efforts Kering has been dedicated to over the past fifteen years. It also highlights the need to accelerate this journey, further enhancing the Group's supplier engagement and traceability programs.

BENEFITS OF PROCESS AND NEXT STEPS

Participating in the SBTN pilot has been rewarding for Kering. The substantial work Kering dedicated to the pilot enhances the Group's Biodiversity Strategy and enables the setting of ambitious, science-based targets. SBTN's focus on localized impacts and targets has encouraged Kering to think more about place-based measures and strategies, which will now feature more prominently in their strategies going forward. By leveraging Kering's existing EP&L data and improving traceability, the Group continues to make significant steps forward in its nature positive journey. Kering looks forward to continuing its journey with SBTN and contributing to a sustainable future for the luxury sector and for the fashion industry more broadly.

Alpro

"We now know where to focus our efforts and where action is needed most. SBTN allowed us to move from improvements based on current knowledge to targets that we know help preserve and protect nature."

CONTEXT AND MOTIVATION

Alpro, a pioneering plant-based brand within Danone, was founded in 1980 and launched the first plant-based dairy alternative products on the market in Europe. Alpro joined the SBTN pilot to ensure its efforts to protect nature were in line with international agreements and science. The company has previously worked with NGOs such as WWF and IUCN to guide its nature work, and has embraced SBTN as a holistic, science-based approach in line with planetary boundaries.

WHAT THE COMPANY ACTUALLY DID AND HOW

Alpro had previously conducted an early local SBTN pilot in 2018 on almond production in

Spain, with the help of WWF and IUCN. Following the success of this local pilot, Alpro conducted a comprehensive materiality assessment and prioritization using SBTN's Steps 1 & 2 for its upstream value chain and direct operations in 2021, supported by WWF and external consultants. In 2023-2024, Alpro then piloted the integrated target-setting process (Steps 1-3), which allowed them to identify both freshwater and land targets (Step 3). Alpro applied the methodology to all its raw materials and products on a global scale.

Having already set climate targets through SBTi, Alpro was able to use existing data streams to collect the required data. However, there were instances where they had to engage further with suppliers to explain additional data requirements as part of SBTN. Where suppliers were not able to share data, Alpro used secondary and proxy data, for which they brought in consultancy support.

FINDINGS

For freshwater, Alpro identified targets in one of its major supply and production basins in eastern France, where it sources soy and has direct factory operations. Alpro decided to take action in this basin, in a region that had experienced water stress, because of its good existing relationships with stakeholders, knowledge of the basin, and an existing regenerative agriculture pilot. However, local water models could not be identified for this basin, and Alpro instead identified a water withdrawal reduction target provided by the local water agency. Through local stakeholder consultations involving the local water agency, NGOs, the Chamber of Agriculture, and soy suppliers, Alpro co-developed an action plan for how to address their impacts on nature and monitor progress.

Actions had already been taken in this basin to help address the challenge of decreasing freshwater resources. However, with SBTN, Alpro was able to identify the volumes of water withdrawn more precisely and compare them with the state of the resource in the withdrawal zone. Although its existing actions were heading in the right direction, Alpro was able to strengthen them with the implementation of SBTN's methods, by setting scientific targets and bringing credibility to the actions identified because of SBTN's internationally recognized framework. SBTN targets also strengthened and lent credibility to Alpro's regenerative agriculture programs by linking them with science-based targets specific to the local context.

CHALLENGES

Alpro found that the SBTN pilot required more granular data than SBTi (for climate targets). This involved additional internal and external engagement to help build awareness and understanding of nature. Alpro also found that global water models did not identify basins where known freshwater issues existed, and that local water basin models were widely unavailable to replace these. Instead, they relied on local expertise and stakeholders. Alpro welcomes the development of the SBTN basin threshold tool, which will help companies determine the availability of local models and threshold data.

Further, they found there was not an International Standard Industrial Classification (ISIC) category for plant-based foods for the tools they used in SBTN's materiality assessment (Step 1), and they found that secondary data for plant-based products was not widely available, requiring them to collect more primary data. For plant-based, tree-crop products, they also considered that the land footprint reduction target was not compatible with freshwater targets, as yield gains may require increased freshwater and chemical use.

BENEFITS OF THE PROCESS AND NEXT STEPS

Alpro found the SBTN methodology valuable for its ability to provide a deep understanding and precision in locating their ecological impacts. This process gave them new, rich insights and learnings about their value chain. The SBTN process was instrumental in generating internal company awareness on nature. Alpro mobilized this by setting up a steering

committee to ensure that stakeholders across the organization were familiar with the SBTN process. The steering committee included members of the CSR team, members of the procurement team from the key categories involved in the pilot, experts (particularly in regenerative agriculture) and representatives from direct operations. In particular, the procurement team played a key role, helping to engage suppliers of commodities affected by the freshwater issue. Alpro found that their efforts to help nature through SBTN provided positive synergies for their decarbonization efforts. The robust, scientific basis of the methodology also helped generate enthusiasm in initial conversations with suppliers and other stakeholders.

1. **Engage internal stakeholders early** to build cultural awareness on nature. For example, Alpro created a video to educate colleagues on the importance of science-based targets.
2. **Build a strong business case** for action to help build internal buy-in, by linking action on nature to clear business benefits such as improved supply chain resilience.
3. **Conduct local stakeholder consultations** to help achieve data quality and to understand the feasibility of different targets and actions.
4. **Draw on external expertise when required**, as the complexity of the methodology means that knowledge gaps may exist. It is still a learning process for all involved.

Holcim

> *"At Holcim, nature matters. That is why we are working to ensure our nature targets are backed by science. As a first-mover company that participated in SBTN's pilot program, Holcim is now equipped with a gold standard approach to comprehensively assess our biggest impacts on nature, measure those impacts accurately, and set targets to address key drivers of nature loss across our direct operations and suppliers."*
>
> – Nollaig Forrest, Chief Sustainability Officer, Holcim

CONTEXT AND MOTIVATION

Holcim is a global leader in innovative and sustainable building solutions. Holcim was motivated to take action to manage its impacts and dependencies on nature, and also in response to investors' increasing interest in nature. Holcim has set validated SBTi climate targets for scopes 1, 2, and 3, so engaging with SBTN was a natural next step for them. They are also keen to establish themselves as a pioneer in their sector through piloting robust science-based targets for nature.

WHAT THE COMPANY ACTUALLY DID AND HOW

Holcim focused on sites that fell within its three most significant business segments: aggregates, cement and ready mix. As an extractive business, most of its impacts are in its direct operations. Holcim used the SBTN Materiality Screening Tool to identify its potential nature impacts, and the Integrated Biodiversity Assessment Tool (IBAT) to identify priority extraction sites in high biodiversity areas. It used the WRI Aqueduct tool to help prioritize water risk areas. Holcim received support from external consultants Biodiversify, who helped them prioritize areas for target-setting. For Holcim, this involved balancing the prioritization of the most degraded areas with areas that are in excellent condition but could soon be under threat. Biodiversify also assisted in choosing biodiversity indexes for the state of nature, as there were many to choose from, each with varying advantages. These indexes include species endemism range, distance from protected areas, and STAR for land, and species endemism, ecosystem rarity, and protected areas for freshwater. For the landscape engagement target, Holcim selected two areas for targets, one in Spain and

another in Canada. These sites were selected because they had material impacts on nature, and because Holcim already had multi-stakeholder initiatives at these sites.

Findings

Through the SBTN pilot process, Holcim identified gaps in its value chain data, which it is now addressing by collecting geo-location data from suppliers. In contrast, Holcim already had granular water data for its direct operations, which has enabled it to start setting ambitious targets in its direct operations. Holcim worked on identifying freshwater quantity targets for direct operations and upstream activities, although the upstream targets were modeled using country-level data given data gaps.

Holcim worked on identifying land targets, but they consider the no conversion target (target 1) to not currently be feasible for an extraction business, while land footprint (target 2) is not required for extraction businesses in the SBTN methods. They submitted two landscape engagement targets (target 3), but these are only validated by SBTN when no conversion targets are set.

Challenges

As an extractive business, Holcim found the freshwater quality targets' focus on nitrogen and phosphorus pollution was less relevant for them and are awaiting the addition of other pollutants such as metals and total suspended solids to the Freshwater methods. They also thought the land conversion target was not realistic for an extractive company, as land conversion is often an essential part of mining activities. Holcim would value sector-specific guidance given these sector-specific challenges.[2]

When sourcing upstream data, Holcim found that many suppliers had not collected data on, for example, water use. Where this data had been collected, some suppliers considered it confidential and were unwilling to share it. Holcim also found there to be a lack of available open-source datasets such as local hydrological models. Where local hydrological models are absent, Holcim does not consider it realistic for companies to build hydrological models from scratch, given expertise and time constraints. SBTN is currently developing a water basin threshold tool, which should assist companies in identifying appropriate hydrological models. Holcim would also have appreciated more guidance on how companies can make claims (now available, and informed by the pilot), especially given the localized focus of many targets.

Benefits of process and next steps

Holcim sees their participation in SBTN as a source of pride and credibility for the company, establishing them as a leader in their sector. The SBTN methods enabled them to prioritize their sites and to pinpoint data gaps in both direct and upstream operations. Further, the pilot provided the opportunity to both learn alongside, and from, many companies across different sectors, which they considered an enriching experience.

Overall, Holcim felt that SBTN raised their ambition. While the SBTN targets are aligned with their existing freshwater targets, the SBTN process will expand the scope of these to upstream operations. They found the SBTN methodology more rigorous than previous approaches used for direct operations, as externally set requirements are bound to be. Participation in the SBTN pilot has also encouraged Holcim to start an extensive supplier traceability initiative, which they hope will improve the granularity of their future target-setting.

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[2] On no-conversion, the SBTN Land Method's level of ambition is based on what science says is needed for nature, and thus, will not change in any forthcoming sector-specific guidance - see the Land methods for allowances that have already been made for extractives.

1. **Start gathering upstream data early**, as engagement with suppliers and other stakeholders takes time. This is particularly salient for mining companies, who often have many suppliers, with a high prevalence of small and medium enterprises (SMEs), who may not have the capacity to collect the required data.
2. **Start the analysis with direct operations** first, as this data is normally in better condition and can be a better point from which to learn about the methodology.
3. **Consultants can help validate data and methods** to ensure submissions are well prepared. Because the data requirements are significant, Holcim found this a very helpful form of external support. External expertise is particularly helpful to supplement in-house expertise.

Information for the above case studies has been provided by the pilot companies and supplemented with content from the WWF (2024) report "Integrating Companies Within Planetary Boundaries: Feedback from the first companies to set Science Based Targets for Nature (SBTN)".

6. Detailed lessons learned from the pilot

Overview of lessons learned

SBTN gathered numerous learnings throughout the pilot via Q&As, the validation process, feedback from piloting companies and their consulting partners, and other preparer groups outside the pilot (WBCSD, UNGC).

Integration of initial lessons learned into method revisions

Following the completion of the validation pilot, SBTN made several enhancements to the methods. Learnings have informed the July 2024 updates in V1.1. of the Step 1: Assess, Step 2: Prioritize and Step 3: Freshwater methods, and V1.0 of the Step 3: Land methods.[3]

Having undergone internal review (including the review of SBTN's Product Development Council), select revisions with strategic relevance were identified for decision making by SBTN's Network Council. Specifically, method revisions aimed to:

- **Improve feasibility: Improve company ability to implement the method guidelines and meet the validation requirements.** Additional tools, datasets, case studies and best-practice guidance have been provided to support users.

- **Improve clarity: Improve company ability to clearly interpret the method guidelines and validation requirements**. SBTN has reduced ambiguity and provided clarifications and prescriptive guidance on tools and datasets where possible (notably with regards to biodiversity). A task-oriented approach has been introduced to align with the corporate manual and make it easier to navigate the method documents.

- **Robustness: Strengthen validation requirements to ensure the method has been completely and correctly applied, protecting the method against misuse and**

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[3] SBTN published the beta version (V0.3) of the Land Methods in May 2023.

greenwashing. For example, the methods continue to apply a lens of prioritization to drive action for nature through place-based science-based targets.

- **Ambition: Strengthen validation requirements to ensure targets are ambitious.** Targets should lead companies to act where nature most needs it.

A summary of the key method revisions for each step of the methods is presented below.

Step 1: Assess & Step 2: Prioritize Learnings

All companies within the pilot were required to complete Steps 1 & 2 of the methods before moving on to target setting. Companies have reiterated the value of completing Steps 1 and 2 as a foundation and mechanism to understand nature-related impacts in their value chains. Through a combination of user feedback, empirical testing and validation findings, a series of key learnings have been identified by SBTN. These have formed the basis of the revisions for V1.1 of the Step 1&2 methods.

Most of the Step 1&2 method revisions were associated with improving the *feasibility* and *clarity* of the methods. The top five lessons learned in the pilot on Steps 1 & 2 are detailed below. See Appendix III for detail of the method revisions.

1. *Material screening tools are fundamental to get started on the right foot in a standardized way.* The prescriptive materiality screening approach developed by SBTN was the preferred option of piloting companies (instead of the *flexible approach*). It provides a standardized way to assess sector-based materiality during the screening phase. The list of sectors, processes and pressures in the Materiality Screening Tool (MST), which is part of the prescriptive approach, were a strong foundation for identifying key material pressures. It also allowed a like-for-like comparison among companies in the same sector.

- Feasibility method improvement: MST improvements

  SBTN has invested resources in improving the scope, navigation and functionality of the Materiality Screening Tool (MST), to make it easier for companies. This is just the first step, and companies should better reserve their effort for developing a comprehensive value chain assessment, which is the next step in SBTN's stepwise framework. Particularly, SBTN created a new function to automate the identification of material upstream activities when introducing a list of sectors in direct operations. While this update was not available to companies during the pilot, other companies can now easily identify their upstream activities and check the automated results for accuracy.

2. *The value chain assessment is one of the most eye-opening steps that can help companies uncover impacts on nature but is also the most resource intensive step and requires an effective data management strategy.* Companies in the pilot leveraged the data they have from previous efforts to quantify their impacts of nature but also had to assess new metrics for water pollution, land use change and soil pollution. Additionally, companies were asked to use the suite of recommended tools to assess state of nature indicators for the places they operate in or source from. While the process can be cumbersome, requiring large amounts of data and dealing with limited traceability and interpretation of nature indicators, piloting companies have praised the value of undertaking the process. Companies can use this information for managing risks within their direct operations and supply chains and it can inform long-term investment planning and strategy for nature.

- Feasibility method improvement: Adjustment of the value chain assessment scope

Based on companies' feedback, SBTN made some changes to narrow the scope of economic activities and commodities to enter the value chain assessment. Now, only economic activities associated with production inputs in the upstream value chain segment must be included, and services and capital goods can be excluded. This allows companies to focus their attention initially where the most material impacts are. SBTN also changed the requirement around the inclusion of High Impact Commodities (HICs) in the upstream value chain segment, to allow the exclusion of up to 10% of the volumes across commodities. The intent of these changes is to facilitate the initial analysis, while continuing to strive for a full value chain assessment over time. SBTN will continue to investigate how companies can estimate the pressures associated with services, capital goods, and relatively small volumes of HICs in their supply chain.

3. *The value chain assessment has advanced company biodiversity impact assessments, yet to ensure state of biodiversity is accurately impacting the outcome of the value chain assessment, further guidance is needed to ensure appropriate selection and use of data inputs.* Companies noted that in completing the biodiversity state of nature assessment, they increased their knowledge of biodiversity metrics, gained scientific understanding of impacts on biodiversity and better understood how to measure it. Ultimately, this analysis helps companies prioritize locations to start their target-setting journey. Science-based targets help protect biodiversity by focusing on key drivers and pressures that lead to biodiversity loss, resource depletion and ecosystem degradation, and by integrating landscape approaches. Though V1.0 of the method required companies to select metrics appropriate to terrestrial and freshwater systems, companies did not always choose appropriate datasets, in part due to the availability of this type of datasets.

- Feasibility method improvement: Additional guidance on State of Nature Biodiversity (SoNB)

   Based on the conversations with companies and the review of the metrics used for SoNB during the pilot, SBTN added guidance in Step 1 V1.1 and its Appendix 1. SoNB indicators - minimum approach, to help companies navigate and better understand the coverage and limitations, when selecting SoNB indicators. The aim is to reduce the time and effort required to find this information, mitigate the risk of introducing errors and increase the value of this assessment for companies even more.

4. *The lack of traceability was the most pervasive challenge that companies experienced from Steps 1 and 2 (materiality assessment) to Step 3 (target-setting).* The premise of science-based targets for nature is to use the best available scientific data on impacts and state of nature in each location at a given time. This is not an invention of SBTN, but rather the conclusion of the global scientific community. During the pilot, companies struggled to identify the locations for their upstream activities and commodities for the most impactful stage of the value chain and raised a number of challenges associated with collecting this information. Although Steps 1&2 V1.0 allowed for the completion of the assessment using modeled locations, companies had little to almost zero traceability to raw material extraction or production phases. This was a limitation for implementing Step 3, where for baselining companies had to choose basins with sufficient information to meet the pilot's target-setting requirements, and in the land method, it limited the ability of companies to locate production sites in the Natural Lands Map.

- Feasibility method improvement: Prioritization guidance to increase traceability

   During the pilot, SBTN created a working group on the so-called Target Boundary B in the methods (where companies only have multinational or continent-scale visibility on a given commodity). This group of experts helped create the guidance in

Step 2 V1.1. and Appendix 3. Actions for upstream target boundary B, with a proposed prioritization approach for commodities or activities with insufficient traceability for target-setting to implement alternative measures alongside gaining more traceability, such as product design. The prioritization approach uses tiers that are a function of existing conditions to facilitate traceability to points of origin. Although the additional guidance is aimed at helping companies, the task is titanic and is one that is cross-cutting to sustainability work. Numerous efforts worldwide are occurring in this space, yet SBTN would like to make a call to continue to work together to accelerate progress. SBTN has also introduced timelines in Step 2 to move upstream volumes of commodities in scope, to the level of traceability required in Step 3 methods. This will help companies develop time-bound plans to gain traceability. SBTN will continue to develop guidance, including guidance for recycled content and waste streams that were also raised in the pilot as key challenges.

5. ***Whilst the prioritization of locations for target setting is an important step, some companies found that the results of the prioritization step did not align with their expectations of the most impactful locations.*** SBTN recognizes the need for the output of the prioritization activity to better reflect a company's combined pressure on nature, existing state of nature, and the ability to act. While we initially did allow for optional, additional filters that could impact overall prioritization, we recognize it lacked specificity which was disabling companies from taking the holistic perspective to prioritization that we know they need.

- Feasibility method improvement: simplification and standardization of Step 2 prioritization

To continue to allow this feasibility mechanism that reduces barriers for entry, SBTN merged some sub steps in the previous version and introduced new rules and guidance for Step 2 optional prioritization protecting its rigorousness. These must be used after completing impact-based rankings, which may incorporate factors beyond environmental and societal materiality, such as stakeholder engagement, human rights, business dependencies on nature, and financial or strategic interests. These additions, if followed by companies (since they are optional), would be aligned with CSRD principals e.g., integrating financial considerations for a double materiality approach.

Step 3 Freshwater Learnings

If freshwater was identified as a material pressure in Step 1 & 2, pilot companies were encouraged to set two water quality and two water quantity targets (per the new Claims Guidance, this is no longer a requirement). As with Steps 1 & 2, learnings from companies setting freshwater targets through the pilot have formed the basis of revisions for V1.1 of the Step 3 Freshwater target setting method.

Most of the Step 3 Freshwater method revisions were associated with improving the *feasibility* of the methods. The top three lessons learned in the pilot on Steps 3 Freshwater are detailed below. See Appendix III for details of the method revisions.

1. ***Stakeholder consultation for model selection can be time and resource-intensive; however, when successful it paves the way for collaboration.*** We found from the pilot that some companies could not identify a suitable local model for high-priority basins for various reasons, including that relevant local-level stakeholders were unresponsive during the pilot timeframe. Furthermore, in some cases, companies could not confirm with stakeholders whether the global model was acceptable for target setting in the basin. However, in cases where stakeholder consultation was

successful, it helped companies better understand the needs in the basin and, in some cases, the projected trends.

- Feasibility method improvement: stakeholder consultation improvements

Based on pilot findings, going forward, SBTN will allow consultation with just one relevant local-level stakeholder in top priority basins, as long as the stakeholder can refer to an appropriate local model and threshold with supporting evidence. SBTN recommends consultation with several stakeholders, and the list of relevant local-level stakeholder types remains unchanged. SBTN has also introduced new recommendations on completing stakeholder consultations in the guidance and in resource materials (e.g. suggestions for questionnaires, identification of synergies with the Landscape Engagement target when relevant) to support companies in this exercise.

2. *Local hydrological models are hard to find and do not always meet the needs of SBTN target-setting methods.* The pilot highlighted that there are limited local models. When identified, they are not always appropriate for target-setting. We also saw cases where a local model was found, but there was no reduction threshold derived using ecological considerations to pair it as specified in the Freshwater method. Furthermore, the stakeholders consulted were not always able to confirm the appropriateness of a local model. Therefore, many companies were required to use a global model and confirm the appropriateness of that model with local stakeholders.

- Feasibility method improvement: global model acceptance

For top-priority basins, if the company is unable to identify an appropriate local model and cannot engage with local stakeholders to confirm the appropriateness of the global model for target setting, companies can still proceed with using the global model for the purpose of target setting. Companies must demonstrate they have attempted to find a local model and contacted national and local stakeholders (providing the validation team with the specifics on the basin, organization, and title of those contacted). Companies are required to continue the consultation process, and the public target dashboard will display any incomplete consultations. SBTN also recommends disclosing incomplete consultations in company communications.

However, even when global water models are a useful tool to set directionally meaningful targets based on the available science, they do not substitute for the need to develop more contextual, locally developed models. Companies are encouraged to help develop these models, and it is important to find synergies with other frameworks and societal actors to create the conditions for their development.

3. *Companies may need to set longer than 5-year target dates for various internal and external reasons (including alignment to local goals and timing to achieve deep reductions).* The current Freshwater Step 3 guidance (v1.0) states, "Companies must submit their targets with a target year of five years from the date that the target is submitted." However, several pilot companies requested that their target year be 2030, six years from the submission date. Their rationale is that it better aligns with organizational goals and is easier to communicate internally and externally with stakeholders. Another reason was to align with the target year of locally set targets by water authorities. Separately, several pilot companies determined a reduction in pressure >25%, which might need a longer timeframe to be reached.

- Feasibility method improvement: expansion of the 5-year target date

SBTN are expanding the 5-year target date for the following two cases:

- For a pressure reduction target of 25% or less: 5-year target date applies, (up to 10 years with adequate justification)
- For a pressure reduction target above 25%, up to a 10-year target date applies.

Companies may choose to set longer (or shorter) target dates for various internal and external reasons. This update provides a framework for addressing those needs and the time that may be needed to achieve higher reduction targets. The threshold between a five- and ten-year target is intended to discourage deferred action on lower reduction targets. 25% was selected based on judgment to reasonably implement response options.

- Feasibility claims improvement: flexibility in target-setting progression

As a result of the pilot findings regarding the amount of time and resources required to set targets, SBTN is allowing companies to set as few or as many freshwater targets as they choose, whether these be for direct operations or upstream. Associated claims will be strictly limited to targets set and communicated alongside the company's overall impacts (as reported in Step 1.a).

Step 3 Land Target Learnings

Where land use and land use change, or soil pollution was a material pressure, companies were encouraged to try to set all required targets. Given that the land methods were released as a beta version (V0.3), learnings from the pilot have informed the development of V1.0 of the methods. Positively, we found in the pilot that the suite of land targets is raising the ambition of companies' mitigation actions on their land use and land use change.

1. *Target 1 – No conversion of natural ecosystems: target boundaries and dates.* This target goes beyond no deforestation and covers no conversion of other natural ecosystems of great relevance such as grasslands. Companies were encouraged to expand their ambition; however, the pilot has highlighted that there is a need to continue to align to other external frameworks with respect to coverage and target dates (e.g. the EUs Regulation on Deforestation-free products or EUDR). This will simplify the target-setting process for companies and allow them to focus initially where the greatest impact is occurring.

- Feasibility method improvement: simplification and alignment of target dates to other external frameworks

SBTN has further strengthened the alignment of the No Conversion target with external frameworks. As before, companies must meet the no-deforestation component of these requirements by 2025, for all stages of the value chain. In alignment with EUDR, the 2025 no deforestation requirement is now focused on the following commodities: soy, cattle, oil palm, wood, cocoa, coffee, and rubber. This requirement is aligned with AFi, the SBTi FLAG requirements and the European Deforestation Regulation (EUDR EU 2023/1115).

2. *Target 1 - No conversion of natural ecosystems: challenges when estimating conversion baselines, mainly due to limited traceability and the spatial granularity in tools.* V0.3 of the land methods requires that, at the point of submission for validation, companies should include a baseline estimate of conversion for all volumes of commodities purchased where companies know the spatial scale at either the site or sourcing area (i.e., Target Boundary A). However, not all commodities categorized within Target Boundary A for the pilot were traceable to the sourcing or site area. Therefore, companies within the pilot struggled to assess conversion for all commodities in

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Target Boundary A.

- Feasibility method improvement: Conversion estimates for Target Boundary A

In the revised methods, all volumes that cannot be traced at least to subnational level remain in Target Boundary B. For these commodities, companies will have until the target date to assess conversion. For all volumes in Target Boundary A land use change (i.e., conversion) must be assessed. To support companies in completing this exercise, SBTN has provided more flexible guidance on the way in which land use change can be assessed based on traceability levels.

3. *Target 1 – No conversion of natural ecosystems: challenges in the prioritization of high ecological value areas:* Core Natural Lands, a subset of natural areas in the SBTN Natural Lands Map, were introduced as an effort to prioritize area of higher ecological value and reconcile existing priority locations for no deforestation and conversion commitments. The result has been a layer that required traceability to the production unit to differentiate between sourcing from core and non-core. Hence, the approach was not suitable to the actual data availability of companies.

- Feasibility method improvement: Introduction of new conversion hotspots (in substitution of previous Core Natural Lands)

A new simplified approach based on coarser areas of conversion hotspots was introduced as a solution to address the traceability issue, whilst bridging it with an approach that focuses early efforts on those areas that are more at risk of conversion. Conversion hotspots refer to places with pressures that have resulted in the conversion of natural land classes to non-natural land classes between 2000 and 2020 (applicable to sourcing commodities in Annex 1a in the SBTN Land Method). This prioritization is separate from and additional to the spatial prioritization that companies complete in Step 2. This change also affects sectors who belong to the list of MICE sectors, such as mining and extractives, (previously identified as the IFC SP6 pathway). Companies in these sectors now have two options: 1) committing to no conversion of areas identified through the IFC SP6 environmental assessment process as "critical habitat" or "high conservation value" areas, or 2) committing to no conversion of areas identified as core natural lands in the Natural Lands Map. This includes "Key Biodiversity Areas" and "Protected Areas" (all classes) found within the Integrated Biodiversity Assessment Tool (IBAT) and areas identified as critical habitat in the UNEP-WCMC (2017) Global Critical Habitat screening layer to identify areas for no conversion. Areas identified as protected areas or key biodiversity areas in IBAT and likely critical habitat in the UNEP-WCMC Critical Habitat map shall be included as no-conversion areas whether they are identified as natural land in the SBTN Natural Lands Map or not.

4. *Target 2 – Land footprint reduction:* This target can be perceived as incompatible with regenerative agricultural strategies that would require more land to yield co-benefits, however, adopting comprehensive strategies with a systemic view on trade-offs, demand & supply levers and innovation are necessary.

- Robustness method improvement: Intensity vs absolute targets

Given the benefits and challenges with both absolute and intensity approaches, for V1.0 of the Land targets, SBTN has left open the option for producer and consumer companies to set either type of target. However, absolute targets are recommended for large consumer companies such as retailers given their greater ability to reduce land footprint through demand-side measures such as shifting their portfolios to less-land-intensive products. It is acknowledged that for both types of Land

Footprint Reduction targets, there is a risk that they incentivize unsustainable types of agricultural intensification, and/or that these targets incentivize consumer companies to shift their sourcing from lower- to higher-yielding areas. SBTN has provided further guidance on how companies can manage trade-offs and unintended consequences through response option planning, the setting of complementary environmental targets, and social safeguards.

5. *Target 3 – Landscape engagement*: *providing additional clarity to the landscape initiative minimum requirements.* We found in the pilot that many companies leveraged their existing initiatives, but there's the need to work on strengthening their engagement with stakeholders, their goals, their baselines and their reporting systems.

- Clarity method improvement: updated maturity matrix and compliance guidance for the four key minimum criteria for landscape initiatives

SBTN has introduced an updated maturity matrix from CDP, ISEAL, Landscape, and, based on the updated matrix, four new minimum criteria for landscape initiatives have been added. These four criteria provide the basis for the self-assessment that companies need to do to understand whether the landscape initiatives they are submitting are meeting the minimum requirements for the structure of the initiative. Looking ahead, the Land Hub is working on V2: more prescribed indicators companies can use. This could also help with additionality.

Companies' science-based target-setting journey

1. **Progression through the steps**- *Considering the various degrees of company data availability, traceability, and general readiness to go through SBTN steps, companies would struggle to progress on all issue areas at the same time.* SBTN's overall guidance in the piloted methods directed companies to move forward with all material issue areas as soon as they complete Steps 1 and 2 and they gathered the minimum data requirements for step 3. However, the methods did not prescribe a time limit for moving through SBTN steps or for progression across different issue areas (freshwater quantity, freshwater quality, land, etc.). A lesson learned in the pilot was that companies are at various levels of maturity on the different realms, and that they face different challenges too with respect to upstream impacts (e.g., different means and challenges to obtain better traceability, and different leverage on their suppliers depending on the tier), which makes it hard at this stage to come up with a definitive rule on a company's progression through SBTN framework.

- Feasibility improvement: flexibility in a company's pathway to progression through the steps while keeping claims tightly bound to what has been set to date.

As an outcome of the pilot, SBTN has addressed feedback to provide more flexibility in the target-setting journey. SBTN has done this, supported by a robust Claims Guidance that ensures transparency and accountability. This includes:

- SBTN now allows companies to publicly disclose completion and validation of Steps 1 and 2- materiality assessment and prioritization work. While SBTN's methods focus on corporate target-setting based on the best available science, this adjustment will help sustainability practitioners make the case internally, ensuring top management buy-in.

- Companies are now permitted to set targets on a single real (e.g., freshwater), even if the company has impacts on multiple realms. Each claim will be strictly limited to the disclosed target, which will be hosted on SBTN's target tracker along with the company's materiality impact assessment (Step 1 results).
- For freshwater targets, while SBTN encourages completion of target-setting for the entire target boundary, there is currently no obligation to do so. Companies may set as many or few freshwater targets as they choose to within a timeframe of their choice. These targets can be within direct operations, upstream, or both. Claims will be strictly limited to each disclosed target.
- To address implementation challenges associated with the 2025 upstream zero conversion target within V1.0 of the Land Method, SBTN is introducing an alternative pathway that allows companies to progressively scale up their efforts towards achieving SBTN's full no conversion target by 2030.

Overall, while companies gain more experience, gather data and secure resources to progress in their science-based target-setting journey, SBTN will take concerted steps to transparently disclose each company's progress. For example, SBTN's upcoming public tracker will include materiality assessment results and companies' target progression against target boundaries (e.g., basins covered under approved targets compared to the total number of basins in the company's freshwater quantity target boundary.

7. Best practices for target setting

To prepare for implementation and validation, companies through the pilot recommend the following advice. The Corporate Manual can be referenced for additional tips.

1 Have a good understanding of the methodologies, tools and datasets associated with setting science-based targets for nature from the get-go.

This will help you plan the resources needed to complete the task efficiently. An overview of the data requirements for each step is provided at the front of each method. Resources such as SBTN's Step 1 Toolbox also provides information to support companies in completing each step of the methods.

2 Ensure sufficient resources are available and that buy-in is sought across the business.

Be mindful that the collection and analysis of data, and the stakeholder engagement is time and effort consuming. Collaboration and alignment between the group's teams is important (sustainability, procurement, etc.) to gain buy-in, support data collection and facilitate action for target-setting.

3 Understand whether you have the required analytical skills in-house to be able to implement the methods.

The piloting companies have consistently cited the need to have sound data

analytical skills, including the ability to manipulate and assess spatial data. You can use external consultants to support your target-setting if you don't have the expertise in house, especially on spatial analytics, footprinting and state of nature assessments.

4 Start with gaining traceability as this is fundamental for target-setting.

Start with getting a good understanding of your value chain and focus on locations for target-setting where you have the required traceability. However, don't let perfection stop you starting the work – the methods provide a pathway for increased scope of target setting as traceability improves over time.

5 Ensure you understand the connections between method steps.

Data collected and analyzed in Steps 1 and 2 of the methods, can and should be used for step 3 baselining. The data requirements within Steps 1&2 specifically call out where data will be used or should be improved for Step 3.

8. Pilot deliverables

Technical guidance

The following material has been updated or created during the pilot to support companies setting science-based targets for nature. Materials can be found in SBTN's [Resource Library](#).

- **Technical guidance**: SBTN has released version 1.1 of the Step 1: Assess and Step 2: Prioritize, and Step 3: Freshwater guidance. Version 1.0 of the Step 3: Land guidance has also been released. Alongside the methods, SBTN has updated the Step 1a Materiality Screening Tool and the High Impact Commodity List.

- **SBTN Corporate Manual**: A new manual providing a practical overview of all existing technical guidance from the Science Based Targets Network for target setting.

- **Technical FAQs:** New technical FAQs on setting corporate science-based targets for nature have been created, based on learnings from the pilot.

- **Steps 1 & 2 Self-Assessment Tool:** A tool to enable companies to assess their level of readiness and get prepared to submit the final validation submission form on Step: 1 Assess and Step 2: Prioritize.

- **SBTN Natural Lands Map:** A tool for all companies setting No Conversion targets, to estimate natural ecosystem conversion since 2020 that is associated with the company's operations or commodity volumes in its supply chains.

- **Water Footprint Assessment Tool:** This tool can be used to assist companies in completing Step 1: Assess and Step 2: Interpret & Prioritize, using the "Accounting" function to gather data on water pressures, and the Step 3: Freshwater method for target setting (v1), using the "Sustainability" function to establish a baseline and target using the globally developed modeling approach.

- **SBTN State of Nature Water Layers App:** In the context of SBTN steps 1 and 2, this app helps companies assess the State of Nature for Water Availability and Water Pollution around their operations and supply chain locations. Companies can also use the app for Step 3: target setting when using a global modeling approach.

Validation resources

To support companies in streamlining the validation process, the following resources have been developed:

- **Validation submission forms:** A document for companies to develop their targets and submit them for validation.
- **Validation data templates:** Excel templates for companies to share their data in a clear and standardized way (i.e., pressure estimates and target baselines) for validation.
- **Claims guidance:** A guidance document detailing permissible claims after obtaining validation.
- **Requirements and recommendations:** compilation of the requirements and recommendations across all steps of the methods which companies will need to meet to have targets validated.

9. Next steps

SBTN's validation pilot for the first suite of science-based targets for nature has brought valuable learnings. As explained in this report, methods, tools and other resources were improved or created to help companies in their target-setting journey. The effort of pilot companies and their supporting partners paved a clearer and more feasible pathway for future companies.

SBTN has been actively listening, has already made method changes with the release of updated methods in July 2024, and will continue to take actions to improve performance across its three KPIs: rigor, feasibility, and reach. SBTN is also committed to revisiting its strategic priorities and theory of change and collaborating with external stakeholders on system-wide challenges including upstream traceability to ensure the greatest impact.

Recommendations for companies interested in setting targets

Here are the actions SBTN recommends to companies outside the pilot group:

1. **Reference SBTN's Corporate Manual** which provides a distillation of SBTN's technical guidance as well as best practices before getting started.
2. SBTN recommends all companies **get started with a comprehensive materiality assessment** using its Step 1: Assess and Step 2: Prioritize methods.
3. If you're not yet part of **SBTN's Corporate Engagement Program**, **here** you can find more information.
4. **Build the business case** for your company and get ready by referencing our **How to get started** section on our website.

Appendix I: Pilot target setting requirements

Minimum target-setting requirements

Companies in the target validation pilot were required to assess and prioritize their impacts on nature (Steps 1 & 2) and set targets on freshwater and/or land (Step 3) including submitting targets for official validation to SBTN. The intention was to help SBTN pilot its target submission and validation process, and to ensure the pilot would yield useful insights and learnings to strengthen the methods. For this purpose, SBTN developed minimum validation pilot target-setting requirements (Appendix II). For freshwater targets, the aim was for companies to set two water quality and two water quantity targets. For land targets, the aim was for companies to set all required targets. Where possible, pilot companies were encouraged to go beyond these minimum pilot requirements.

Validation process

SBTN established a pilot validation process aiming to ensure the robustness, impartiality, and consistency of all validations. The steps involved in the validation process are outlined below:

1. *Submission:* Pilot companies were required to submit their assessments and targets using the SBTN provided submission forms to the dedicated TVT email. Companies were required to complete Steps 1 and 2 of the methods and submit for validation, before submitting Step 3 targets for validation.

2. *Validation:* Upon submission, validators first screened the company submission for completeness against the validation requirements. They then completed a desktop review of pilot company evidence for adherence to SBTN method requirements (including deviations with appropriate justification). When needed, validators organized calls with the companies and their supporting partners to clarify the information provided.

3. *Discussion*: The TVT met twice a week to discuss company submissions and calibrate validations. In addition, check-ins with the Technical Team during Step 1 and 2 validations, and with Issue Hub representatives during Step 3 validation were organized to discuss situations that were not described in the methods and that could become new guidance.

4. *Reports:* Validators prepared a non-public report summarizing the requirements from the methods and documented the extent to which companies met each of the validation requirements. SBTN's validation is binary, Pass or No Pass. To pass validation companies must fulfill the minimum validation requirements. All reports were reviewed by the Validation Director.

Due to the tight pilot timeline, SBTN approved several validation exceptions only applicable to the pilot. These pilot exceptions indicate specific deviations from the method requirements and were issued to help companies progress through the pilot where common challenges were found. These challenges arose from feasibility issues or from methods lacking the necessary specificity. These exceptions provided valuable insights that helped shape updates to SBTN's newly published methods, and as a result, they are no longer applicable. The exceptions are documented in Appendix III and will be publicly

communicated for companies disclosing their targets.

All information was stored in SBTN's protected file system and SBTN secured support from a specialized IT company to ensure additional safeguards were in place to protect company data.

Throughout the pilot SBTN conducted two progress reviews with the support of an independent consulting partner. Companies participated in interviews and answered surveys to inform SBTN team about methodological roadblocks and key challenges with meeting timelines. These efforts helped SBTN identify and deploy resources and strategies to help companies move forward in the pilot. These included training on the use of specific tools, 1:1 calls with companies, and as mentioned above, the introduction of pilot exceptions.

> *Implementing SBTN methods leads to strategic decisions:*
> *"We believe in the power of the output and that is what makes it worth embarking on the journey. Returns should be thought of from the decision-making perspective … SBTN's assessment helped in conversations about capital allocation and procurement, and there is benefit in that."*
> – piloting company

Appendix II: Minimum target-setting requirements

Minimum target-setting requirements – Freshwater methods

Companies were asked to meet the following minimum requirements for freshwater target setting where possible. All targets submitted were validated as part of the pilot.

Table 4. Minimum freshwater target setting requirements

Requirement	Detail
Two freshwater quantity targets	At least one target must be for a top-priority basin (using either type of model, following the complete stakeholder consultation process). One of the two targets must be for direct operations and the other one must be for upstream.
Two freshwater quality targets	If your company has nutrient pollution impacts in direct operations, please follow the same logic than for freshwater quantity. If your company does not have nutrient pollution impacts in direct operations, then: One target for a top-priority basin (using either type of model, following the complete stakeholder consultation process). One target for a non-top-priority (using the global model).

Minimum target-setting requirements – Land methods

Companies must use the guidance provided in the Land Methods (pages 18-27) to determine which targets they are required to set.

Table 5. Minimum land target setting requirements

Requirement	Detail
No conversion of natural ecosystems	Covering the totality of the direct operation target boundary and upstream activities for land use and change.
Land footprint reduction target	Covering the totality of the direct operation and upstream activities for agricultural lands. Note: applicable only to the company's agricultural land footprint.
Landscape engagement target	Option 1. One Landscape Engagement Initiative that covers: Direct operations: 10% of the area of the target boundary related to LU&LUC and soil pollution, AND Upstream (target boundary A): 10% of the area of the target boundary related to LU&LUC and soil pollution. Option 2. One Landscape Engagement initiative, regardless of size, in materially relevant landscapes (during the pilot timeframe). Note: If your company chooses Option 2, you'll be required to set and validate another Landscape Engagement target following the validation pilot (as specified in the methods). This would impact on claims that can be made at the completion of the pilot. Therefore, where possible, we encourage you to aim for setting two landscape targets within the pilot timeframe.

Appendix III: Pilot exceptions and clarifications

Overview

Throughout the pilot, SBTN communicated method clarifications and introduced several one-time exceptions to the validation requirements. Exceptions were approved by SBTN on different dates throughout the pilot for application exclusively during the pilot. The introduction of these exceptions and clarifications was necessary when companies faced challenges for validation submission or when the methods lacked specificity.

SBTN is using these exceptions as a basis to analyze potential changes to method requirements in line with balancing scientific rigor and feasibility. The reviewed methods published alongside this report override some of these pilot exceptions. Others remain open for further discussion and evaluation.

Targets approved during the validation pilot are required to observe specific rules in SBTN's Claims Guidance, with respect to method alignment.

Step 1: Assess & Step 2: Prioritize

Table 6. Step 1&2 pilot exceptions

Method step	Pilot exception	Rationale	Status
1a: materiality screening	**Exclusion of "Supporting goods and services" from a company's organizational boundary** Pilot companies were allowed to exclude supporting activities (i.e., activities not related to production or the main business operation) from their organizational boundary. Supporting activities may include office activities, administration, marketing, IT, etc. Justifications for these exclusions were required for validation.	Feasibility	Addressed in V1.1 of the methods
1a: materiality screening	**Exclusion of soil pollution associated with "infrastructure holdings"** Pilot companies were able to exclude providing data in Step 1b and Step 2 for the soil pollution pressure associated with the "Infrastructure holdings" production process based on the Materiality Screening Tool (MST) outputs. Pilot companies challenged the materiality and highlighted the difficulty in collecting relevant pressure data for this activity-pressure pairing.	Feasibility	Not yet addressed
1b: value chain assessment	**Allowing the 67% upstream coverage to be across pressures** In the context of the pilot, the minimum required scope for the Step 1b value chain assessment was 67% of sourced commodities (by tonnage or spend). The percentage is calculated considering that 100% refers to the sum of all (upstream) volumes that were material for at least one pressure category in the Step 1a materiality screening. This was allowed in the pilot, as it was not clear in the method that it should be 67% of the tonnage or spend, for each pressure category.	Clarity	Addressed in V1.1 of the methods

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1b: value chain assessment	**Allowing the scoping of 90% of High Impact Commodities (HICs) to be either per commodity or across commodities** The Step 1b requirements state that companies must assess at least 90% of sourced volume/spend but are recommended to address as close to 100% as possible using modeled estimates. For the pilot, companies were able to calculate the 90% threshold either per commodity or as an aggregated net volume/spend interpretation across commodities. Companies were required to transparently disclose and justify where a lower than 100% amount of each commodity volume was included due to calculation challenges.	Feasibility	Addressed in V1.1 of the methods
1b: value chain assessment	**Allowing working on Step 3 Land target before completion of Land Use and Land Use Change (LULUC) evaluation in Steps 1 and 2** Several companies experienced challenges completing the value chain assessment (Step 1b) for land use and land use change. This included either: not using the appropriate state of nature data to quantify land use change (e.g., using tree cover loss or deforestation data instead of a dataset reflecting broader terrestrial ecosystem loss beyond forested areas) or using a single pressure indicator for both land use and land use change. A pilot exception was made to allow companies to continue working on Step 3 for land target-setting despite not having yet completed the LULUC evaluation in Steps 1 and 2. The baseline data collected as part of the Step 3 land methods fulfilled the Step 1b requirements.	Feasibility	Addressed in V1.1 of the methods
1b: value chain assessment	**Allowing the use of only terrestrial biodiversity state of nature** Several companies used terrestrial biodiversity data in the prioritization for both land and freshwater pressures instead of a separate freshwater biodiversity metric (e.g. freshwater species rarity-weighted richness as suggested in the methods). For the pilot companies were allowed to use only terrestrial biodiversity metrics of their choosing that adhere to the guidelines and recommendations for biodiversity data selection (across all relevant categories of metrics provided in Step 1).	Clarity Feasibility	Addressed in V1.1 of the methods

Step 3: Freshwater

Table 7. Step 3: Freshwater pilot exceptions

Method step	Pilot exception	Rationale	Status
Model selection	**Use of global models for priority basins where stakeholders are unable to confirm the acceptability of the model** For top-priority basins, if a company was unable to identify an appropriate local model and could not engage with local stakeholders to confirm the appropriateness of the global model for target setting, companies could still proceed with using the global model for the purpose of target setting. Companies must have demonstrated that they have attempted to find a local model and contacted national and local stakeholders (providing the	Feasibility	Addressed in V1.1 of the method

Method step	Pilot exception	Rationale	Status
	validation team with the specifics on the basin, organization, and title of those contacted). Companies must continue the consultation process throughout and beyond the pilot.		
Baseline values on relevant pressures	**Use of secondary data for point source pollution** The methods require that pollutants discharged from a facility via a confined discharge pipe (i.e., a point source) must be calculated from primary data. For the purposes of the pilot, it is acceptable for companies to use secondary data to estimate pollution from point sources.	Feasibility	Not yet addressed
Target setting	**Use of 2030 as a target date** The SBTN guidance specifies that FW target dates should be within 5 years of the submission year. Thus, technically the target year should be 2029. However, SBTN recognizes the benefit of adopting a 2030 target year and therefore will accept this for the pilot.	Ambition	Addressed in V1.1 of the method

Step 3: Land

Table 8. Step 3: Land pilot exceptions

Method step	Pilot exception	Rationale	Status
Target 1: No Conversion	**Discrepancies in the High Impact Commodities List in Steps 1&2 vs the Step 3 Land Annex 1** There were minor discrepancies between the High Impact Commodity list in Step 1&2 and the Step 3 List of Conversion Driving Commodities (Annex 1). Companies were required to use the list of commodities in Step 3 Land Annex 1 for setting Target 1 (no conversion of natural ecosystems).	Clarity	Addressed in V1.0
Target 1: No Conversion	**Estimation of conversion for embedded commodities** Companies with embedded commodities for which conversion (or land use change) is difficult to estimate can leave them out for this pilot submission but will be required to observe future guidance on this regard.	Feasibility	Addressed in V1.0
Target 1: No Conversion	**Alignment with the EUDR commodity list** The European Union's Deforestation Regulation (EUDR), released after SBTN methods, covers the following seven commodities: soy, leather, palm oil and palm oil derivatives, wood and wood derivatives, rubber. If a piloting company was unprepared to set 2025 targets for all SBTN Annex 1a deforestation driving commodities, at the minimum they must set 2025 targets for the seven commodities covered by the EUDR. Other deforestation-driving commodities must still be covered under one of the other 2027 and 2030 targets.	Ambition	Addressed in V1.0
Target 1: No Conversion	**Year of assessment for land use change calculations** The methods indicate that companies should assess their LUC up until the year of submission for validation. If companies could not assess conversion for the target year (i.e. 2023) because of lack of data and time, it was acceptable to use 2022 data.	Feasibility	Addressed in V1.0
Target 1: No Conversion	**Use of the Natural Lands Map (NLM) for certified volumes** Companies were exempted from using the NLM for commodity-volumes "claimed" to be conversion free.	Feasibility	Addressed in V1.0

	However, they were required to submit evidence showing that certified volumes are meeting the requirements of the no conversion target. SBTN did not validate certification schemes during the pilot, but additional guidance on certification schemes will be incorporated in subsequent method versions.		
Target 1: No Conversion	**Obtaining geospatial boundaries of production sites** Where companies had been unable to obtain geospatial boundaries for direct operation or upstream production sites >10ha, SBTN allowed companies to use a buffer around one point coordinate so long as the buffer was at least 1.5x the area of the production unit. Companies using this approach must obtain geospatial boundaries for these sites before their next submission and/or to prove achievement of the no conversion target.	Feasibility	Addressed in V1.0

Appendix IV: Method revisions

Step 1: Assess & Step 2: Prioritize Revisions

Table 9. Revisions to Step 1a − Materiality Assessment

	Revision Type	Rationale	Detail
Task 1. Define your organizational boundary	Clarification	Clarity	Clarified the definition of organizational boundary (in line with GHGP) and provided examples.
Task 3. Identify High Impact Commodities	Clarification	Clarity	Clarified the classification of purchased goods for which companies need to screen for high impact commodities (production inputs).
	Tool enhancement	Feasibility	Added land conversion driving commodities to the high impact commodities list to improve alignment between Steps 1 and 3 (Land).
Task 4. Screen for materiality	Tool enhancement	Feasibility	Developed a new interface for the MST Tool.
	Tool enhancement	Feasibility	Developed a new upstream functionality to the Materiality Screening Tool.
	Change in recommendation	Feasibility	Removed the flexible materiality approach (appeared not necessary).

Table 10. Revisions to Step 1b − Value Chain Assessment

	Revision Type	Rationale	Detail
Task 7. Map your value chain activities and locations	Clarification	Feasibility	Clarified the scope of the value chain upstream assessment: only production inputs are required; services, capital goods and nonproductive goods are excluded.
Task 8. Quantify the environmental pressures of your activities	Change in requirement	Ambition and Feasibility	For every pressure category, the required scope of the assessment is 100% of direct operations sites material for that pressure category and at least 67% of the total upstream production input volumes, including at least 90% of the total high impact commodity volumes (instead of 90% of volume for each High Impact Commodity in V1).
	Clarification	Clarity and	Clarified the scope of included commodities: only the ones physically present in the

			production inputs plus the embedded EUDR commodities in the associated animal feed.
Task 9. Assess the State of Nature in each geographical location	Clarification	Clarity and Feasibility	Refined the list of biodiversity metrics, reflecting the specific pressures relevant for each target setting method and representing biodiversity at different levels (ecosystems and species).

Table 11. Revisions to Step 2a – Determine Target Boundaries

	Revision Type	Rationale	Detail
Task 1. Determine target boundaries for each pressure category	Clarification	Clarity and Feasibility	Changed the definition of target boundary to improve alignment with SBTi and the GHGP. Target Boundary refers to the economic activities that have material pressures for the indicators used for a target (instead of spatial definition in V1).
	Change in requirement	Feasibility	Introduced tiered prioritization based on data availability: level 1 (Step 3 compatible) and level 2 (subnational level, not yet ready for Step 3) fall into Target Boundary A, and level 3 (national or global resolution data) falls into Target Boundary B.
	New requirement	Ambition	Companies purchasing raw commodities are required to obtain or estimate data consistent with requirements for upstream Target Boundary A for >0% of their upstream activities and commodities before proceeding with Step 3 method.
Task 2. Set aside volumes with insufficient value chain traceability	Change in requirement	Feasibility and Ambition	Volumes with country level data to be included in Target Boundary B since they are insufficient for target setting. Introduced time-bound requirement to transition all volumes from Target Boundary B to Target Boundary A in 5 years for Freshwater, and by target date for Land.
Task 3. Harmonize spatial units	Clarification	Feasibility	Clarified both what "harmonization" is, and which data needs to be harmonized.

Table 12. Revisions to Step 2b – Interpret and Rank

	Revision Type	Rationale	Detail
Task 4. Normalize pressure and State of Nature	Clarification	Clarity	Added explicit language in the method to clarify common misinterpretations and errors we observed during the pilot: clarified that normalization is the process of

			transforming and scaling data to fit within a consistent range (traditionally from 0 to 1).
(SoN) indicators			
Task 5. Create index values for all pressure categories	Clarification	Clarity	Added new language and guidance materials on Ip (pressure specific index value) and SoNb (Biodiversity State of Nature data) rankings (developed a case study and a corporate manual that include examples).
	Clarification	Feasibility	Clarified criteria to allow for exclusion of negligible pressures for Freshwater targets. In situations when companies have data at spatial granularity to set targets in Step 3; the pressure accounts for less than 1% of the total pressure for that specific pressure category; and the state of nature in the location is healthy, indicating little to no need for change. The total exclusions for a specific pressure, however, cannot account for more than 10% of a company's total pressure.

Table 13. Revisions to Step 2c and 2d – Prioritize

	Revision Type	Rationale	Detail
Task 6 - Task 9	Clarification	Clarity	Combined Steps 2c and 2d for increased clarity in methods and increased robustness.
Task 9. Prioritize within target boundaries	New Requirement	Clarity Robustness	Added requirement to justify reprioritization conclusions based on at least one of the three criteria in this analysis (stakeholder engagement, company dependencies on nature, and other considerations such as feasibility and strategic interest), e.g., why these are most relevant for their company, which information sources were used, and why these were selected.

Step 3: Freshwater Method Revisions

Table 14. Revisions to Step 3 - Measure, Set, and Disclose Freshwater Targets

	Revision Type	Rationale	Detail
Stakeholder consultation for hydrological model selection	Change in Requirement	Feasibility	Consultation with one relevant local-level stakeholder is also permissible in top priority basins, as long as the stakeholder can refer to an appropriate local model and threshold with supporting evidence. The SBTN list of relevant local-level stakeholder

			types remains unchanged, and consultation with several stakeholders is recommended.
	Clarification	Clarity	Stakeholder consensus on each of the criteria for assessing the appropriateness of a model is not a target validation requirement.
	New Recommendation	Clarity Feasibility	New recommendations on how to complete stakeholder consultations are introduced in the guidance and in resource materials (e.g. suggestions for questionnaires, identification of synergies with the Landscape Engagement target when relevant).
	Clarification	Clarity Robustness Feasibility	For top-priority basins, if the company is unable to identify an appropriate local model and cannot engage with local stakeholders to confirm the appropriateness of the global model for target setting, companies can still proceed with using the global model for the purpose of target setting. Companies must demonstrate they have attempted to find a local model and contacted national and local stakeholders (providing the validation team with the specifics on the basin, organization, and title of those contacted). Companies must continue the consultation process, and incomplete consultations will be included in the public target dashboard. The disclosure of incomplete consultations is also recommended in company communications.
Target Date	Change in requirement	Feasibility	Expansion of the 5-year target date: For a pressure reduction target of 25% or less: 5-year target date applies, (up to 10 years with adequate justification). For a pressure reduction target above 25%, up to a 10-year target date applies.

Appendix V: Validation dashboard

The following is the content that stakeholders can expect to find in SBTN's Validation Dashboard. While SBTN develops an online tool, it will add companies to a spreadsheet version on an ongoing basis.

Step 1: Assess and Step 2: Prioritize Revisions

GENERAL INFORMATION

Company Name	
Sector	
Organizational Boundary & Approach	
Year of Step 1 & 2 Validation	

MATERIAL PRESSURES (SCREENING & EVALUATION)

	Land use and land use change	Freshwater ecosystem use & change	Marine ecosystem use and change	Water use	Other resource use	Water pollution	Soil pollution	GHGs
Direct operation: Material pressures in Step 1a								
Upstream: Material pressures in Step 1a								
Direct operation: Material pressures evaluated in Step 1b								
Upstream: Material pressures evaluated in Step 1b								

Note 1. Other pressure categories in the Spreadsheet version are non-GHG air pollution, solid waste, other ecological disturbances, and biological alterations and interferences.

Note 2. In Step 1b, companies are only required to evaluate pressure categories for which there is Step 3 -technical guidance.

LISTED SPECIES & ASSESSMENT COVERAGE

Listed Species (If the company sources IUCN/CITES listed species add them here)		
1b – Assessment Coverage	1b – Coverage (%)	
	Spend or volume for coverage	

TARGET BOUNDARIES

	2a – Target Boundary A coverage (%)	
Target Boundary A	Spend or volume for coverage	
	2a – List of HICs included in Target Boundary A	
Target Boundary B	2a – List of HICs included in Target Boundary B	

Note 1. During the pilot, SBTN implemented an exception to allow companies to determine the above percentages across pressure categories, as it wasn't clear in the guidance. For companies beyond this group, percentages will need to be calculated and met individually per pressure category.

STEP 1&2: PILOT EXCEPTIONS

Pilot exceptions	

Step 3: Freshwater

GENERAL INFORMATION

Quantity or Quality target	Year of validation	Hydro-Basin ID	Basin Name	Country	Direct Operations or Upstream

MODEL AND TARGET TIMEFRAME

Local or global model	Model name (if local)	Years averaged for baseline	Target year	Monthly or yearly targets

TARGET INFORMATION

Model reduction threshold		Selected reduction threshold	
Target language			
Number of targets set out from total target boundary			
Pilot exceptions			

Step 3: Land – No Conversion of Natural Ecosystems

No Conversion of Natural Ecosystems Target

Target language	
Target years	
Cut-off date	
Year of Validation	
Pilot exceptions	

Step 3: Land – Land Footprint Reduction

Base year	Target year	Percentage (%) of reduction	Absolute/ Intensity	If intensity, absolute equivalent % change

Commodities included in the target	
Covering direct operations and/or upstream activities	
Target language	
Pilot exceptions	

Step 3: Land – Landscape Engagement

Name of the initiative	Total area covered by the initiative (ha)	Location (country level or finer)	Type of activities the company is engaging in (e.g., conservation, regenerative agriculture)

Overarching goal of the initiative	
Ecological and social indicators in the landscape initiative roadmap to measure progress	
Target language	
Pilot exceptions	

SCIENCE BASED TARGETS NETWORK
GLOBAL COMMONS ALLIANCE