

When will
transparency
drive action to
protect and
restore nature?



The better the question.
The better the answer.
The better the world works.

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Foreword

Humanity is presently living in a time that is characterized by the profound influence of human activities on the earth's natural systems. For example, how companies source raw materials, manufacture and transport products, and manage waste all have significant implications on the health of natural systems, meaning that these issues are not bound to any one sector of the economy. Understanding this influence and acting to prevent negative human impacts on nature and the environment are increasingly topics of debate among policymakers and capital markets stakeholders. This is evidenced in part by the emergence of environmental and sustainability measures in regulatory frameworks across various regions and countries. Companies are also taking steps to understand how their operations impact nature and are taking measures to mitigate harmful effects.

Compiling and creating more in-depth, nature-related reporting can help companies make more informed decisions on their strategy, risk management processes and how they allocate assets as it relates to their nature-related risks and opportunities.¹ Additionally, companies can also consider actions to prepare for compliance with future regulatory requirements and meet increasing stakeholder expectations relating to nature.

The first EY US Nature Risk Barometer was performed utilizing the Taskforce on Nature-related Financial Disclosures' (TNFD) draft beta v0.4 framework and recommendations. Even though the TNFD recommendations are in draft with TNFD scheduled to launch its final recommendations in September 2023, companies are starting to leverage the framework for their nature-related disclosures.² This report aims to show the current state of nature-related reporting consistent with the TNFD recommendations and analyzes company disclosures regarding their governance, strategy, risk and opportunity impact management, and metrics and targets related to nature. The alignment to and coverage of these nature-related disclosures informed the findings of this report.

This analysis provides a baseline analysis of nature-related corporate disclosures across 10 sectors based on an assessment of over 100 US S&P 500 companies' public disclosures on biodiversity and nature-related activities and objectives.

This report found that how, and the extent to which, companies are disclosing nature-related dependencies, impacts, risks and opportunities is limited. With this report, the EY organization hopes to shed light on the current state of corporate nature-related disclosures and provide a perspective on future reporting on this topic. Companies can leverage this report to consider enhancements to their own nature-related reporting.



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¹ "About," *TNFD website*, <https://tnfd.global/about/>, accessed July 2023.

² The TNFD beta framework v0.4 was released in March 2023 and the final recommendations will be published in September 2023.

About this report

The purpose of this report is to provide companies with an understanding of the current state of nature-related reporting consistent with the Taskforce on Nature-related Financial Disclosures (TNFD) framework. This report analyzes current corporate disclosures in the US across 10 sectors to provide a snapshot of the coverage and alignment to nature-related reporting against the 14 recommendations within the draft beta v0.4 framework established by the TNFD.³

TNFD recommendations

The TNFD was launched in October 2021 with the mission to develop and deliver a risk management and disclosure framework for organizations to report and act on evolving nature-related risks.⁴ While the TNFD framework is still in its draft form, some companies have chosen to disclose in alignment with it already. Companies have reported on nature-related topics such as water scarcity, climate and land use for years prior to the release of the draft framework. In March 2023, the TNFD released the fourth beta version of its prototype risk management and opportunity disclosure framework that closely aligns with the Task Force on Climate-related Financial Disclosures (TCFD), providing nature-specific guidance. The 14 recommendations included in the latest TNFD beta version informed the scoring process of the 100+ companies for this report. In September 2023, the TNFD plans to publish its finalized set of recommendations distributed across four pillars – governance, strategy, risk and impact management, and metrics – offering guidance and a proposed approach to nature-related disclosure metrics.

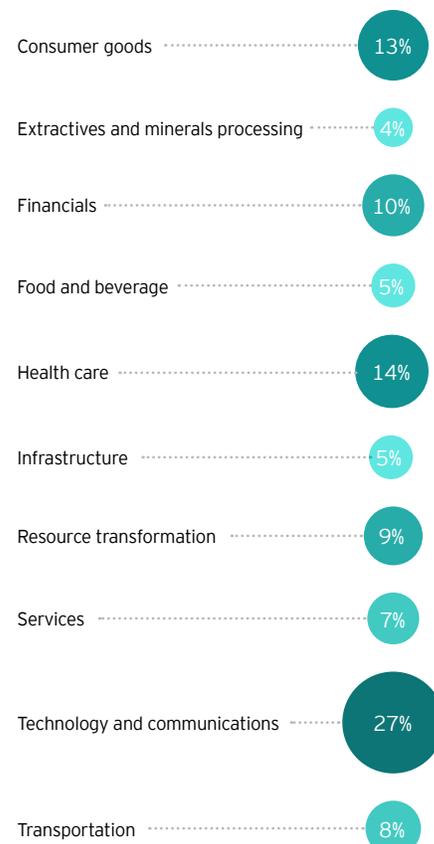
Structure of the analysis

This report provides an assessment of current nature-related disclosures for US-based companies across 10 sectors: consumer goods, extractives and minerals processing, financials, food and beverage, health care, infrastructure, resource transformation, services, technology and communications, and transportation.⁵ Nature-related disclosures refer to the reporting of information by companies and organizations about their impacts on nature, biodiversity and ecosystem services. These disclosures provide transparency so that stakeholders can assess environmental performance and sustainability. They cover aspects such as resource use (e.g., energy, water, minerals, plant-based materials), conservation efforts, habitat management and integration of nature considerations into business strategies. Standardized frameworks like the TNFD guide these disclosures with the intention of promoting accountability and conservation of the natural environment.

The 111 companies included in the analysis were selected from the S&P 500 to reflect a mix of sectors and companies that reported on sustainability matters in 2022. This analysis leveraged commonly published reports, such as environmental, social, governance (ESG) and sustainability reports, annual reports, TCFD reports and CDP, (formerly the Carbon Disclosure Project) climate, forest and water questionnaires. The CDP questionnaires, covering climate, forest and water, offer valuable insights into nature and biodiversity-related information. In the past, this information has been primarily located within the C15 section of

the CDP Climate questionnaire. However, when available, CDP Forest questionnaires typically contain more comprehensive disclosures regarding nature and biodiversity compared to the information found in CDP Climate Section C15. Additionally, in CDP Water questionnaires, companies frequently provided water metrics that companies would tie into their nature-related considerations.

Figure 1. Percentage of companies analyzed per sector



³ The 10 sectors are in line with TNFD's sector classification.

⁴ "Introduction to the Framework," *TNFD website*, <https://framework.tnfd.global/introduction-to-the-framework/>, accessed July 2023.

⁵ Although the report considered the sectors identified by the TNFD, it is worth mentioning that the report did not gather any data related to the renewable resources and alternative energy sector. This is because either no companies in that sector were included in the S&P 500 index or the reports of the companies in that sector for the year 2022 were not available in time for this analysis.

Figure 2. Core elements of the TNFD recommended nature-related financial disclosures⁶



Scoring

Companies were scored on two different metrics: the coverage of the disclosures and the extent of their alignment to the 14 TNFD recommendations.

1. Coverage

Companies’ disclosures were assigned a score (as a percentage) based on the number of TNFD recommendations that they addressed. A score of 100% indicates that the company disclosed some level of information with respect to each of the recommendations, regardless of the extent to which the information provided aligns with the TNFD recommendations.

2. Alignment

Companies’ disclosures were given a rating (0 to 5) based on the extent to which the disclosure aligned to the TNFD recommendations, expressed as a percentage of the maximum score. A score of 100% indicates that the company included disclosures aligned to all recommendations, and the alignment of the disclosures met the maximum score of 5 for each of the recommendations.

Companies were given a rating based on the extent to which the disclosures aligned to the TNFD recommendation, using the following scoring system:

- ▶ **0** - No evidence of disclosure alignment
- ▶ **1** - Underdeveloped, limited discussion of the recommendation components (or only partially discussed)
- ▶ **2** - Basic, general discussion or disclosure of the recommendation components
- ▶ **3** - Developing, detailed discussion or disclosure of the recommendation components
- ▶ **4** - Well developed, well-articulated detailed disclosure of the recommendation components
- ▶ **5** - Market leading, addressed all components of the recommendation in detail

⁶ "Introduction to the Framework," TNFD website, <https://framework.tnfd.global/introduction-to-the-framework/>, accessed July 2023.



Figure 3. List of TNFD recommendations organized by pillar and designated by letter⁷

Governance

The organization's governance around nature-related dependencies, impacts, risks and opportunities

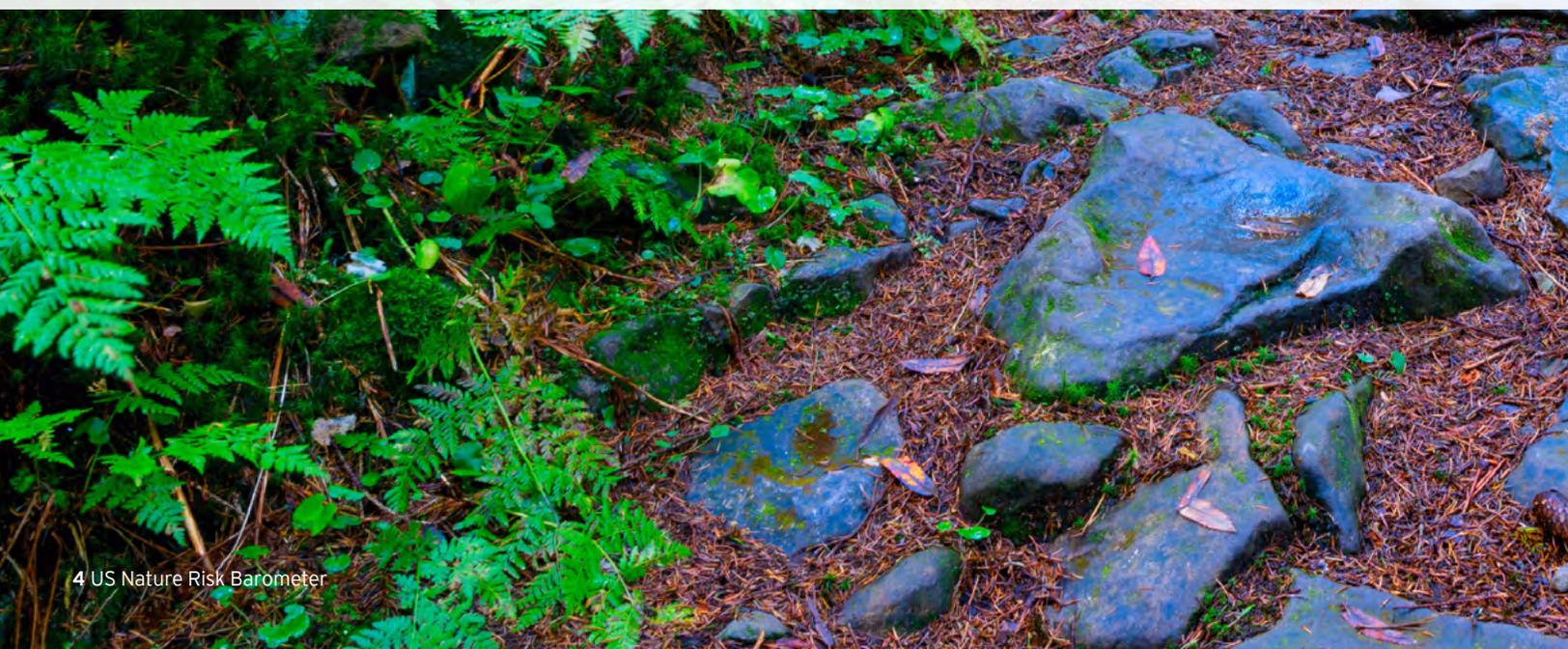
- A.** Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities.
- B.** Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities.

Strategy

The actual and potential impacts of nature-related dependencies, impacts, risks and opportunities on the organization's businesses, strategy and financial planning where such information is material

- A.** Describe the nature-related dependencies, impacts, risks and opportunities the organization has identified over the short, medium and long terms.
- B.** Describe the effect nature-related risks and opportunities have had on the organization's businesses, strategy and financial planning.
- C.** Describe the resilience of the organization's strategy to nature-related risks and opportunities, taking into consideration different scenarios.
- D.** Disclose the locations where there are assets and/or activities in the organization's direct operations, and upstream and/or downstream and/or financed, where relevant, that are in:
 - ▶ High integrity ecosystems; and/or
 - ▶ Areas of rapid decline in ecosystem integrity and/or
 - ▶ Areas of high biodiversity importance; and/or
 - ▶ Areas of water stress; and/or
 - ▶ Areas where the organization is likely to have significant potential dependencies and/or impacts.

⁷ "Draft recommended disclosures," TNFD website, <https://framework.tnfd.global/draft-recommended-disclosures/>, accessed July 2023.



Risk and impact management

How the organization identifies, assesses and manages nature-related dependencies, impacts, risks and opportunities

- A.** (i) Describe the organization's processes for identifying and assessing nature-related dependencies, impacts, risks and opportunities in its direct operations.
- A.** (ii) Describe the organization's approach to identify nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain and financed activities and assets.⁸
- B.** Describe the organization's processes for managing nature-related dependencies, impacts, risks and opportunities and actions taken in light of these processes.
- C.** Describe how processes for identifying, assessing and managing nature-related risks are integrated into the organization's overall risk management.
- D.** Describe how affected stakeholders are engaged by the organization in its assessment and response to nature-related dependencies, impacts, risks and opportunities.

Metrics and targets

The metrics and targets used to assess and manage relevant nature-related dependencies, risks and opportunities where such information is material

- A.** Disclose the metrics used by the organization to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process.
- B.** Disclose the metrics used by the organization to assess and manage dependencies and impacts on nature.
- C.** Describe the targets and goals used by the organization to manage nature-related dependencies, impacts, risks and opportunities, and its performance against these.

⁸ For the purposes of scoring for this reporting, companies were given one coverage and one alignment score for Risk and Impact Management A(i) and A(ii). Disclosures against these two recommendations were not scored separately.



Executive summary – key findings

The report found that coverage and especially alignment scores, on average, are low across the US-based 100+ companies included in the analysis, indicating that currently there is a low level of maturity with respect to how companies are disclosing nature-related dependencies, impacts, risks and opportunities.

These are some of the key findings from the EY analysis:

1. While over 87% of the companies analyzed disclosed information responsive to at least one of the 14 TNFD recommendations, the overall average coverage score compared with the TNFD recommendations was 51%. This indicates that while companies on average are reporting on nature-related disclosures aligned to over half of the TNFD recommendations, they are still limited in what they disclose when measured against this framework.
2. The average alignment score of 13% for company nature-related disclosures is significantly lower than the coverage scores. While the percentage is low, it may be explained by the fact that the TNFD framework was still in the process of releasing its beta versions at the time the companies were compiling their disclosures for 2022. This score is generally consistent with the recent CDP analysis, which notes that nearly 70% of companies that reported to CDP in 2023 did not assess the impact of their value chain on biodiversity.⁹ This low score indicates that companies are limited in comprehensively disclosing on nature-related risks and opportunities.
3. Disclosures responsive to the strategy pillar of the TNFD recommendations had the highest coverage and alignment scores out of all the pillars, although only by a few percentage points. The two highest average alignment scores across the 14 recommendations were from the strategy pillar.
4. From a sector perspective, the food and beverage sector had the highest scores for both coverage and alignment. Consumer goods and infrastructure also scored highly compared to other sectors. Health care, financials and transportation scored lowest among all the sectors.
5. Companies disclosed the most in relation to nature-related dependencies, impacts, risks and opportunities over the short, medium and long term with an average coverage score of 68% and an average alignment score of 18%.

About this report

- ▶ 111 US companies were assessed across 10 sectors.
- ▶ This report leveraged the 14 TNFD recommendations to score companies on alignment and coverage.

⁹ "Companies failing to engage suppliers on nature and climate despite incoming regulation," CDP website, <https://www.cdp.net/en/articles/media/companies-failing-to-engage-suppliers-on-nature-and-climate-despite-incoming-regulation>, 15 March 2023.



1

Context for protecting nature

The World Economic Forum's 2023 *Global Risk Report* lists "Biodiversity loss and ecosystem collapse" as the fourth largest global risk over a 10-year period.

Certain international bodies are focusing on nature-related risks and trends in a way that is spurring action among some market participants and standard-setting bodies. For example, the World Economic Forum's (WEF) 2023 *Global Risk Report* lists "Biodiversity loss and ecosystem collapse" as the fourth largest global risk over a 10-year period.¹⁰ The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) identifies some of the largest drivers of biodiversity loss in their most recent *Global Assessment Report*, including the changing use of sea and land, direct exploitation of organisms, climate change, pollution and invasive non-native species.¹¹

The UN Biodiversity Conference (COP 15) took place in December 2022 with goals of addressing some of the global dangers mentioned in the WEF's *Global Risk Report*, specifically biodiversity loss,

ecosystem restoration and indigenous rights protection. One hundred eighty-eight countries gathered in Montreal to develop and adopt the Kunming-Montreal Global Biodiversity Framework (GBF), which set global goals to address biodiversity loss and nature restoration through 2030 and 2050 and established financing support for developing countries.

One challenge to addressing biodiversity loss, according to the TNFD, is that historically organizations and companies were not consistently using terminology and definitions around nature and nature-related risks. Part of the TNFD's objective and the work of other frameworks is intended to address that challenge by developing a common framework and language.¹²

There is a rising number of businesses evaluating their nature footprint through the lens of TNFD's Locate, Evaluate, Assess, Prepare (LEAP) approach¹³ and the Science Based Targets Network (SBTN) mitigation hierarchy¹⁴ – Avoid, Reduce, Restore and Regenerate, Transform.¹⁵ TNFD has over 800 member organizations and over 130 companies are piloting the framework (to be finalized in September 2023). Additionally, the global nature-related regulatory landscape is quickly evolving with a trend toward requiring more nature-related disclosures.¹⁶

¹⁰ "The Global Risks Report 2023," *World Economic Forum website*, https://www.weforum.org/reports/global-risks-report-2023?gclid=CjwKCAjw8symBhAqEiwAaTA__ND6fpdrpj9759bL0rRhUHAapV5UWR3DdfV2DdjFn2elf2yd1wdsdBoCpN8QAvD_BwE, January 2023.

¹¹ "Models of drivers of biodiversity and ecosystem change," *IPBES website*, <https://www.ipbes.net/models-drivers-biodiversity-ecosystem-change>, accessed July 2023.

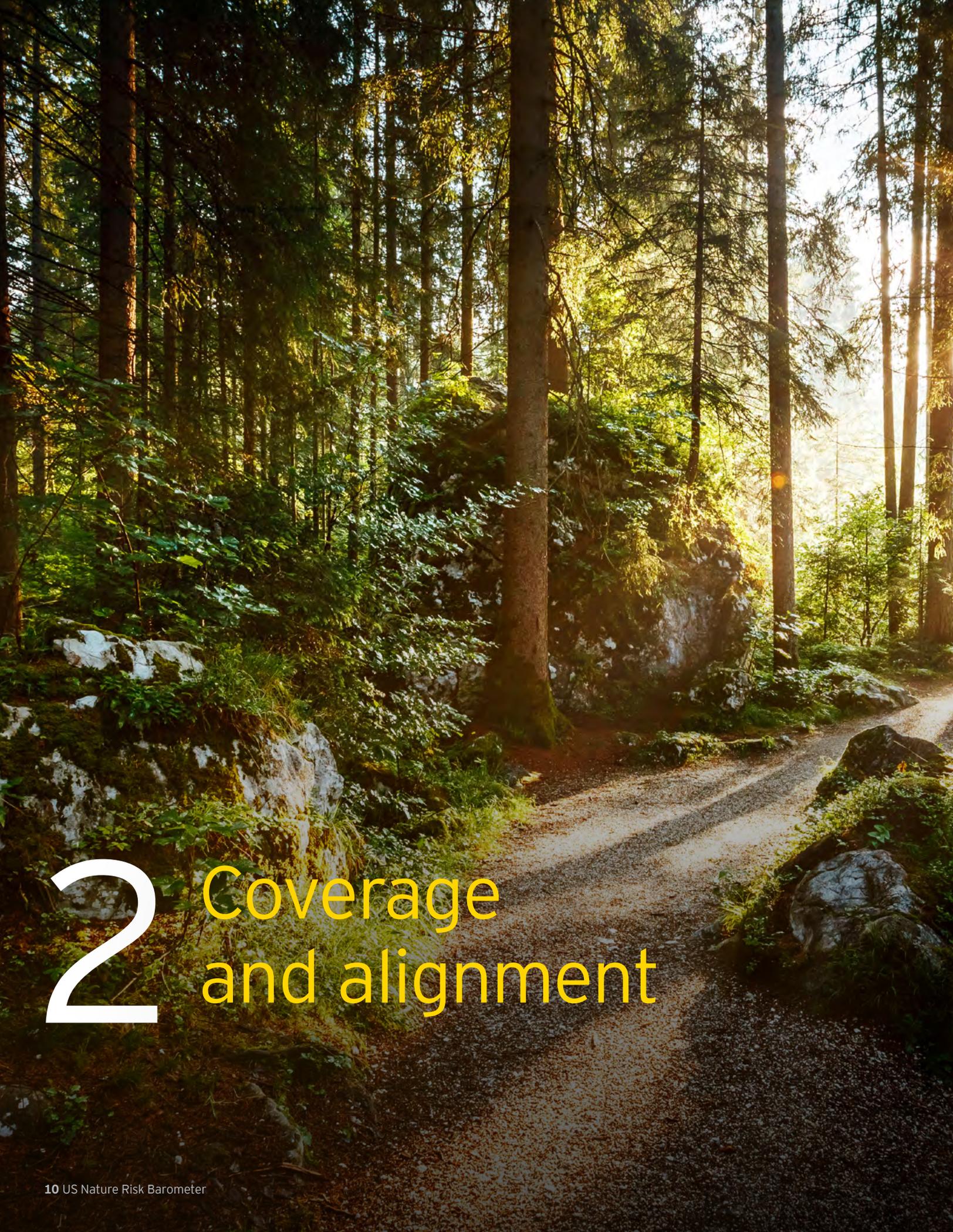
¹² "Concepts and definitions," *TNFD website*, <https://framework.tnfd.global/concepts-and-definitions/>, accessed July 2023.

¹³ LEAP (Locate, Evaluate, Assess, Prepare) is TNFD's integrated assessment process for nature-related risk and opportunity management.

¹⁴ See report glossary for definition.

¹⁵ "SCIENCE-BASED TARGETS for NATURE Initial Guidance for Business Executive Summary," *Science Based Targets Network website*, <https://sciencebasedtargetsnetwork.org/guidance-highlights/>, accessed May 2023.

¹⁶ For information, read the EY article, [How the nature-related regulatory disclosure landscape is evolving](#).

A photograph of a forest path. The path is made of gravel and dirt, winding through a dense forest of tall, thin trees. Sunlight filters through the canopy, creating a warm, golden glow. Large rocks are scattered along the path and on the forest floor. The overall scene is peaceful and natural.

2 Coverage and alignment



While companies have started to disclose nature-related dependencies, impacts, risks and opportunities in alignment with the TNFD recommendations, company transparency around how they are preventing harm to and protecting nature is still limited when measured toward the TNFD framework.

Coverage

Coverage means that a company provides at least some level of information toward each of the 14 TNFD recommendations,

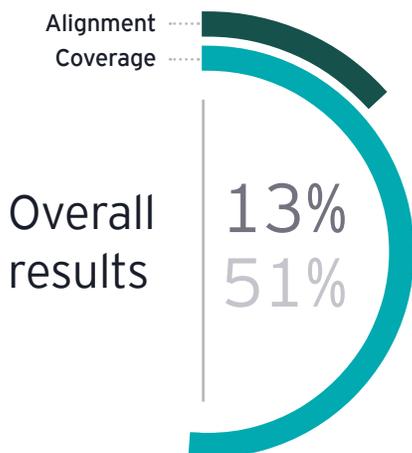
regardless of the extent to which the information provided aligns with the TNFD recommendations.¹⁷

The results of this assessment show that on average companies report on nature-related disclosures aligned to just over half (51%) of the TNFD recommendations. This percentage is low, but may be explained by the fact that the TNFD framework was in the process of releasing its beta versions at the time the companies were compiling their disclosures for 2022.

The average coverage score was highest for the strategy pillar, meaning that companies disclosed more on the actual and potential impacts of nature-related dependencies, impacts, risks and opportunities on the company's businesses, strategy and financial planning.

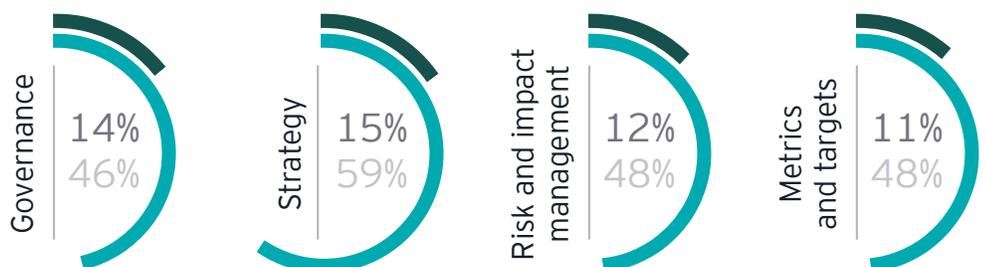
¹⁷ For the purposes of scoring for this reporting, companies were given one coverage and one alignment score for Risk and Impact Management A(i) and A(ii). Disclosures against these two recommendations were not scored separately.

Figure 4. Overall results across the TNFD pillars



Breakdown by TNFD component

Coverage and alignment scores across the four elements of the TNFD recommendations



Alignment

In addition to coverage, companies were scored on the alignment of the information provided with respect to the TNFD framework. Alignment is the extent to which a company's disclosures align with the 14 TNFD recommendations.¹⁸ It considers if the company provided a comprehensive disclosure of a particular aspect of nature risk or if the disclosure was limited, or not provided at all.

While the average coverage of nature-related disclosures is moderate, the alignment of these disclosures is lower at 13%. This low score is likely because the nature-related regulatory landscape is still emerging and at the time companies created their 2022 disclosures the TNFD framework was just releasing beta recommendations and guidance. There may have been limited uptake from companies since these frameworks and guidance were in their beta form. However, it is anticipated that these scores will increase in future years since in some jurisdictions governments, academics, companies and capital markets stakeholders, as well as wider society, are showing a greater interest in nature and recognizing the threat

from biodiversity loss.¹⁹ The White House released a statement in March 2023 sharing its commitment to conserving and restoring nature.²⁰ The data set in this report provides a baseline to evaluate the progress of future nature-related disclosure trends.

Strategy

The strategy pillar was higher in coverage at 59% and slightly higher in alignment at 15% of disclosures compared to the other pillars. Within the strategy pillar, the alignment scores for the recommendations around describing the nature-related dependencies, impacts, risks and opportunities the organization has identified and describing the effect they have on the company's business, strategy and financial planning were the highest within the pillar at 18% and 17%, respectively. These recommendations had the highest average alignment scores out of all 14 TNFD recommendations. Companies also disclosed the most against the TNFD Strategy A recommendation on describing the nature-related dependencies, impacts, risks and opportunities the organization has identified over the short, medium and long term. That TNFD recommendation has a 68% coverage score.

¹⁸ For the purposes of scoring for this reporting, companies were given one coverage and one alignment score for Risk and Impact Management A(i) and A(ii). Disclosures against these two recommendations were not scored separately.

¹⁹ "Loss of biodiversity poses as a great risk to humanity as climate change," *The Economist website*, <https://www.economist.com/technology-quarterly/2021/06/15/loss-of-biodiversity-poses-as-great-a-risk-to-humanity-as-climate-change>, 15 June 2021.

²⁰ Lubchenco, Jane, "Investing in Nature," *The White House website*, <https://www.whitehouse.gov/ostp/news-updates/2023/03/22/investing-in-nature/>, 22 March 2023.

Figure 5. Alignment and coverage score across all four strategy recommendations



TNFD recommendations – strategy pillar

The actual and potential impacts of nature-related dependencies, impacts, risks and opportunities on the organization’s businesses, strategy and financial planning where such information is material

- A.** Describe the nature-related dependencies, impacts, risks and opportunities the organization has identified over the short, medium and long terms.
- B.** Describe the effect nature-related risks and opportunities have had on the organization’s businesses, strategy and financial planning.
- C.** Describe the resilience of the organization’s strategy to nature-related risks and opportunities, taking into consideration different scenarios.
- D.** Disclose the locations where there are assets and/or activities in the organization’s direct operations, and upstream and/or downstream and/or financed, where relevant, that are in:
 - ▶ High integrity ecosystems; and/or
 - ▶ Areas of rapid decline in ecosystem integrity; and/or
 - ▶ Areas of high biodiversity importance; and/or
 - ▶ Areas of water stress; and/or
 - ▶ Areas where the organization is likely to have significant potential dependencies and/or impacts.



3

Sector overview

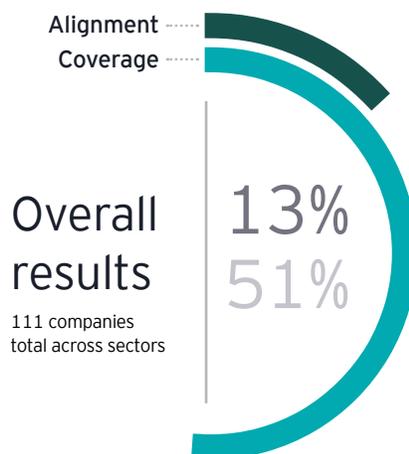
The 10 sectors included in this report align to the sectors identified by TNFD. TNFD's nonfinancial sector classification is based on the Sustainable Industry Classification System (SICS), which is also used by the Sustainability Accounting Standard Board.²¹

The average coverage and alignment scores by sector ranged from 25% to 80% for coverage and 6% to 28% for alignment, highlighting that some sectors are more advanced in how and to what extent they disclose on nature-related dependencies, impacts, risks and opportunities.

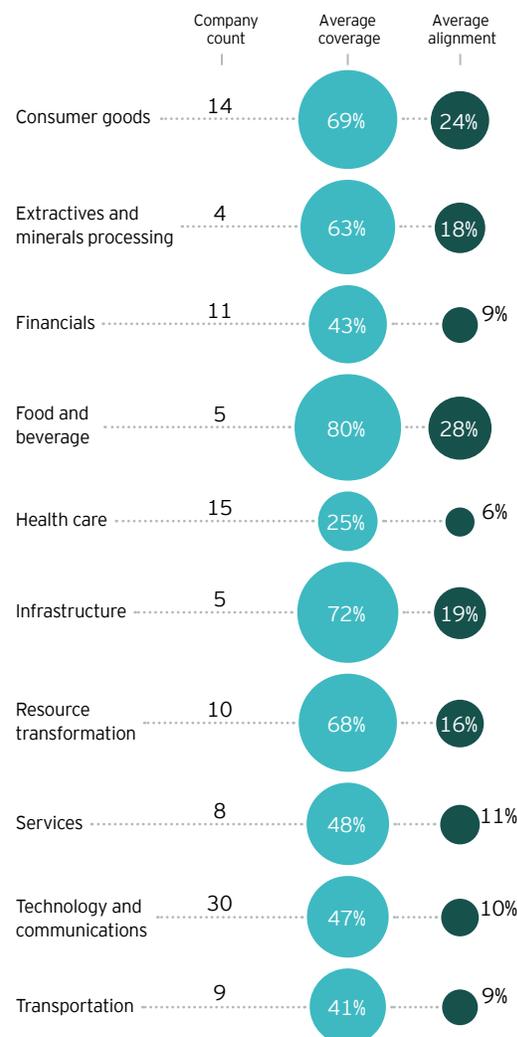
The food and beverage sector led the way with the highest scores for both coverage and alignment. The consumer goods and infrastructure sectors followed closely behind.

The transportation, financials and health care sectors received lower percentages for both coverage and alignment. Each of those sectors received an average of less than 10% in alignment scores. Those sectors had lower alignment scores for the governance and metrics and targets pillars.

Figure 6. Overall results



Breakdown by sector



²¹ "Introduction to the Framework," TNFD website, <https://framework.tnfd.global/introduction-to-the-framework/>, accessed July 2023.

Spotlight on food and beverage

This sector, overall, demonstrated greater alignment to and coverage of disclosures against the TNFD recommendations. Sixty percent of companies assessed disclosed aspects against all 14 TNFD recommendations; however, the remainder of the companies assessed within this sector did not report on the board's or management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities. Of the companies that did report the board's role in assessing and managing nature-related dependencies, impacts, risks and opportunities, companies generally place the responsibility, on a corporate governance or sustainability committee. Additionally, in alignment with one of TNFD's recommendations in the strategy pillar, 80% of companies assessed in this sector disclose locations where there are assets or activities tied to the company in priority areas, specifically in water-stressed or biodiversity hot spots, using tools such as the World Resources Institute (WRI) Aqueduct tool and the World Wildlife Fund (WWF) risk assessment tool. One company assessed within this sector received the highest overall alignment score compared to the 111 companies assessed. This was primarily driven by strong alignment scores for nature-related disclosures across governance, strategy, and metrics and targets.

Company spotlight on Mondelez International, Inc.

Out of the 111 companies assessed, Mondelez International, Inc. (Mondelez) received the highest alignment scores and a 100% coverage score for reporting some information against each of the TNFD recommendations.

Through its disclosures focused on governance, Mondelez provided a detailed explanation of the Board's responsibilities over nature-related dependencies, impacts, risks and opportunities, and provided some explanation of how the board monitors and oversees progress against goals and targets on nature-related issues. Mondelez's Board of Directors has a Governance Committee made up of three or more independent, non-employee directors who hold oversight on sustainability issues such as deforestation and progress on related KPIs.²²

The company also provided detailed strategy disclosures on the potential impact of nature-related risks and opportunities on financial performance, including an explanation of where the business strategy may be affected by nature-related risks and need to change. In its CDP Forest response, for example, Mondelez disclosed that cocoa is a critical raw material for the company's chocolate and biscuit portfolio. Extreme temperatures can lead to decreased agricultural yields, which has

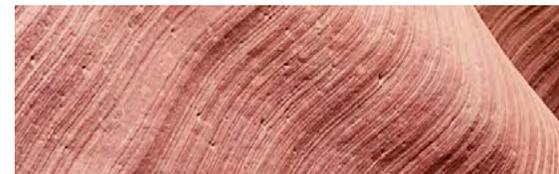
the potential to limit availability of the cocoa Mondelez purchases and uses to develop its products. To address this, Mondelez has established Cocoa Life, which focuses on environmental resilience, including accelerated efforts to remove deforestation, promote agroforestry, and invest in nurseries and climate-resilient cropping practices. Mondelez disclosed this program, among others, in alignment with its business continuity strategy.²³

For risk and impact management, Mondelez scored highest in describing how it engages stakeholders in the assessment of and response to the company's nature-related dependencies, impacts, risks and opportunities. In its CDP Forest questionnaire response, Mondelez included that it considers the following stakeholders in its cocoa supply chain: local communities, nongovernmental organizations, regulators, suppliers, and other local forest risk commodity users and producers. Mondelez also described how the company works with the Global Forest Watch Pro and the Cocoa & Forest initiative to conduct deforestation risk assessments and then works with suppliers to create remediation action plans.²⁴

²² "Mondelez International Inc - Forest 2022," CDP website, https://www.cdp.net/en/formatted_responses/responses?campaign_id=79520713&discloser_id=953684&locale=en&organization_name=Mondelez+International+Inc&organization_number=42037&program=Forest&project_year=2022&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F2022%2Fwv3hnjzp%2F172439&survey_id=78646010, accessed July 2023.

²³ Ibid.

²⁴ Ibid.



Spotlight on technology and communications

Overall scores for companies in this sector demonstrated lower alignment to and coverage of disclosures against the TNFD recommendations. Companies in this sector reported most frequently on descriptions of nature-related dependencies, impacts, risks and opportunities identified. Twenty percent of companies assessed for this sector did not have any disclosures aligned to the TNFD recommendations.

20%

of companies assessed for this sector did not have any disclosures aligned to the TNFD recommendations.

Company spotlight on Microsoft Corporation

Microsoft Corporation (Microsoft) received the highest scores in this sector, driven primarily by the company's detailed disclosures of board and management oversight of nature-related dependencies, impacts, risks and opportunities, all of which align to the governance pillar. Out of the 111 companies assessed, Microsoft received the highest relative governance scores, alongside Mondelez. Additionally, Microsoft received a 100% coverage score for reporting some form of disclosures against each of the 14 TNFD recommendations.

Within Microsoft's climate change submission to CDP, Microsoft disclosed that its company has both Board-level oversight and executive management-level responsibility for biodiversity-related issues, specifically its commitment to protect more land than it uses by 2025, and its effort to build a planetary computer. The charter for Microsoft's Environmental, Social,

and Public Policy Committee identifies environmental and social matters, including its commitment to protect more land than it uses and to build a planetary computer within the committee's purview. Microsoft disclosed that the committee meets at least three times a year and discusses the company's commitments to environmental sustainability, including its biodiversity commitments. Microsoft also disclosed that during at least one meeting each year and additionally on an as-needed basis, Microsoft's president and vice chair and vice president and chief environmental officer present to the committee on sustainability topics. In the fiscal year 2021 reporting period, during that meeting, Microsoft's chief environmental officer discussed Microsoft's commitment to protect more land than the company uses.²⁵

²⁵ "Microsoft Corporation CDP Climate Change Questionnaire 2022," CDP website, https://www.cdp.net/en/formatted_responses/responses?campaign_id=79520704&discloser_id=990845&locale=en&organization_name=Microsoft+Corporation&organization_number=11930&program=Investor&project_year=2022&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F2022%2F6wz4wms4%2F185443&survey_id=78646008, 23 July 2022.



Spotlight on infrastructure

This sector, overall, demonstrated the second highest in coverage and third highest in alignment compared to other sectors based on disclosures against the TNFD recommendations. Only one company within the sector received a full coverage score, meaning that only one company reported at least some alignment across all 14 TNFD recommendations. As a sector, companies reported disclosures that aligned the most to the strategy and risk and impact management pillars. One hundred percent of companies in this sector reported disclosures with at least some alignment to the strategy, risk management, and metrics and targets pillars; however, 40% of companies did not report any disclosures aligned to the governance pillar.

Company spotlight on Jacobs Solutions

Jacobs Solutions was the only company in this sector to receive a full coverage score, and received the highest alignment scores within the infrastructure sector. This was primarily driven by Jacobs Solutions' disclosures of how the company manages nature-related dependencies, impacts, risks and opportunities, and the metrics used to assess these risks and opportunities. Out of the 111 companies assessed, Jacobs Solutions received the highest relative scores for both those drivers.

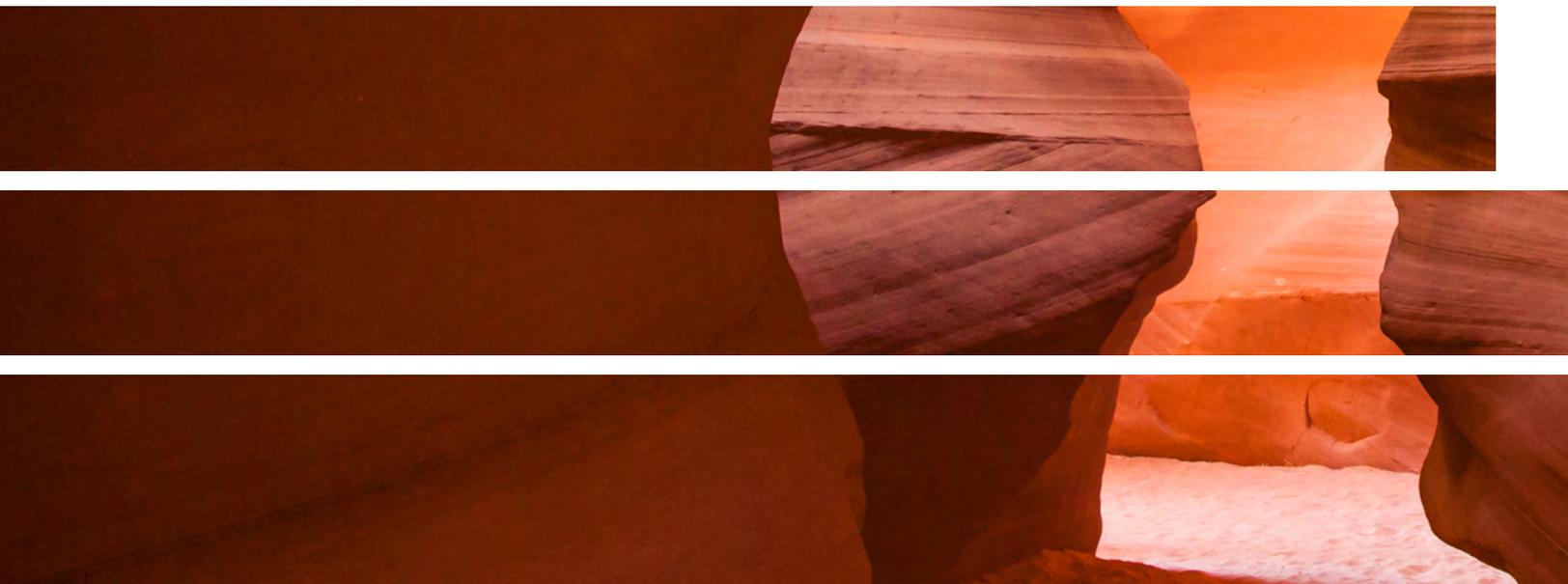
In its 2022 CDP Climate Change Report, Jacobs Solutions disclosed that the company's Office of Global Climate Response & ESG, established in 2021, acts as a connecting point for Jacobs Solutions'

go-to-market solutions within the framework of energy transition, decarbonization, adaptation, resilience, biodiversity and natural resource stewardship, and ESG advisory. Jacobs Solutions also disclosed development of an internal Environmental Screening Checklist to use during field project or construction site visits to screen for protected species and habitats, land disturbance, stormwater management, water discharge, and waterways and wetlands.²⁶

Regarding metrics, Jacobs Solutions disclosed total water consumption in million cubic meters in the company's Fiscal Year 2022 ESG Data Disclosures report as metrics used to assess and manage relevant nature-related dependencies, impacts, risks and opportunities.²⁷

²⁶ "Jacobs Solutions Inc. - Climate Change 2022," CDP website, https://www.cdp.net/en/formatted_responses/responses?campaign_id=79520704&discloser_id=941788&locale=en&organization_name=Jacobs+Solutions+Inc.&organization_number=22365&program=Investor&project_year=2022&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F2022%2F6wz4wms4%2F194938&survey_id=78646008, accessed July 2023.

²⁷ "Fiscal Year 2022 ESG Data Disclosures," Jacobs website, https://s29.q4cdn.com/159670324/files/doc_downloads/ESG-featured-docs/2023/FY22-ESG-Disclosures.pdf, accessed February 2023.



Spotlight on consumer goods

This sector, overall, performed the third highest in coverage and second highest in alignment compared to other sectors based on disclosures against the 14 TNFD recommendations. Twenty percent of companies assessed received a full coverage score, meaning the companies reported at least some alignment to all the TNFD recommendations. As a sector, companies reported disclosures that aligned the most to the governance pillar and 100% of companies reported disclosures that aligned with some aspect the metrics targets pillar; 29% of companies did not report on the board's or management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities. Forty-three percent of companies in the consumer goods sector received some of the highest overall scores out of the 111 companies assessed.

43%

of companies in the consumer goods sector received some of the highest overall scores of those assessed.

Company spotlight on Procter & Gamble Company

Out of the 111 companies assessed, Procter & Gamble Company (P&G) received the second highest scores, driven by the company's disclosures of board and management oversight, strategy, risk identification process and nature-related targets. P&G received the highest relative score for its disclosures aligned to the metrics and targets pillar. Additionally, P&G received a 100% coverage score for reporting some form of disclosures aligned to each of the TNFD recommendations.

In its 2022 Citizenship Report, P&G included a section on nature-related goals and progress. In that section, P&G disclosed the company's commitment to natural ecosystems and going beyond its supply chain by partnering and investing in nature-based solutions. In the nature goals and progress pages, P&G disclosed that the company is committed to responsible sourcing and has quantitative goals focused on the percentage of materials that are sustainably sourced or recycled for the company's palm, wood pulp and

paper packaging supply chains. P&G also disclosed both quantitative (to protect, restore or improve 1.5 million acres of land) and qualitative (to advance natural climate solutions) goals to protect, improve and restore critical ecosystems through supporting on-the-ground projects and partners. The company disclosed that 68% of palm oil purchased is used in P&G brands and, of that, 65% is RSPO certified, a global certification system and verification mechanism for certified sustainable palm oil. P&G also disclosed that company utilizes a third-party provider, Earthqualizer, to monitor compliance. Additionally, 100% of wood pulp sourced by P&G is third-party certified. Monitoring this commitment is ongoing and incoming invoices are reviewed to ensure they contain the certification claim.

Other quantitative and qualitative nature-related goals the company disclosed include water reduction and recycling, restoring water in water-stressed areas, and responding to water challenges through innovation and partnerships. Progress toward each goal is disclosed publicly in the report.²⁸

²⁸ "2022 Citizenship Report," P&G website, <https://us.pg.com/citizenship-report-2022/>, accessed July 2023.



4 The future of nature-related disclosures

75% of land has been significantly altered by humans, including 85% of wetlands, which has contributed to 1/8 (1 million) of world's species of plants and animals being threatened with extinction.²⁹

According to the World Wildlife Fund, among others, the role of businesses is pivotal in safeguarding and revitalizing nature.³⁰ Transparent disclosure and comprehensive reporting on corporate performance intends to make it easier to assess what has and has not been done.

The final version (v1.0) of the TNFD framework will be published in September 2023. The TNFD is collaborating with standard-setting organizations, such as International Sustainability Standards Board and Global Reporting Initiative, to facilitate the alignment of its framework with nature-related standards, guidance and other frameworks. Following the release of v1.0, the TNFD will focus on scaling market adoption of the framework, working with standard-setting organizations to translate the framework into standards and create a global baseline for nature-related reporting, working with regulators and governments to help with their commitment to the Global Biodiversity Framework, and developing additional technical guidance for companies to implement the framework.³¹

Additionally, some companies are already starting to adopt nature-related disclosures and signal public commitments in this area. For example, approximately 130 organizations are already designing, piloting or have completed a pilot of the TNFD beta framework.³² The SBTN chose 17 companies to participate in a pilot for setting the first science-based targets for nature based on their readiness and suitability to establish their initial science-based targets for nature. The first phase of this initiative will involve conducting a pilot program focused on water and land with the SBTN providing guidance on how to adequately prepare to set science-based targets. By early 2024, the program will be available to all companies.³³

²⁹ "Facts about the nature crisis," *UNEP website*, <https://www.unep.org/facts-about-nature-crisis>, accessed June 2023.

³⁰ "Nature Positive Business," *WWF website*, https://wwf.panda.org/discover/our_focus/markets/nature_positive_business/, accessed July 2023.

³¹ "Introduction to the Framework," *TNFD website*, <https://framework.tnfd.global/introduction-to-the-framework/>, accessed June 2023.

³² "Piloting the Framework," *TNFD website*, <https://framework.tnfd.global/piloting-the-framework/>, accessed July 2023.

³³ "17 Global Companies to Set World's First Science-Based Targets for Nature This Year," *Sustainable Brands website*, https://sustainablebrands.com/read/defining-the-next-economy/17-companies-worlds-first-science-based-targets-for-nature/?utm_source=newsletter&utm_medium=email&utm_campaign=nl_230601, accessed 31 May 2023.



5 Action items for business

Companies evaluating their own disclosure frameworks and ways to integrate nature-related concepts, particularly if aligned with the TNFD framework, may consider the following steps as part of their overall strategy.

1. Understand and identify location-specific nature interfaces and priority risks and opportunities across your company's value chain.

Leverage the first three stages of the LEAP process – Locate, Evaluate and Assess – as described by the TNFD framework to identify business areas that are most affected by and that have an impact on nature.

2. Develop a nature and biodiversity organizational strategy.

Set measurable, actionable and time-bound targets to reduce impacts and dependencies for nature. Land and water are crucial components to reduce a company's impacts on nature and mitigate biodiversity loss. SBTN for Nature has developed guidance on how to set these targets based on the latest science on these topics.³⁴

3. Implement your strategy and establish effective governance.

Implement your strategy throughout your operations and supply chain. Establish board oversight of nature-related disclosures and designate management's role in assessing and managing nature-related topics within the company.

4. Evaluate and report performance.

Tracking and reporting on progress are important pieces to drive accountability and continuous improvement in a company's nature-related strategy. As part of assessing data and measurement needs, companies should consider how the company will measure and monitor impacts and dependencies on nature. Additionally, companies should identify reporting gaps in preparation for evaluating and disclosing performance. With current and emerging nature-related regulations, standards and frameworks, companies can assess potential relevant standards and requirements and consider potential metrics against which to report performance.

5. Develop nature and biodiversity capacity and knowledge and identify collaboration opportunities.

Collaboration is an important part of achieving nature-related targets. Is your company working with other groups (i.e., through public-private partnerships, with Indigenous peoples and more) to identify ways to innovate and collaborate? Additionally, building capacity and capability of your teams can help companies get ahead of regulation as nature reporting gains momentum.

³⁴ "Step 3. Measure, set and disclose targets," *SBTN website*, <https://sciencebasedtargetsnetwork.org/how-it-works/set-targets/>, accessed June 2023.



Glossary

Biodiversity

The variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.*

Corporate Sustainability Reporting Directive (CSRD)

A recently approved directive by the European Commission that replaces the EU's Non-Financial Reporting Directive (NFRD). It establishes enhanced environmental, social and governance (ESG) reporting requirements for companies. While originating from the EU, the CSRD has a global reach, impacting not only EU-based companies but also an estimated 10,000 companies outside the EU.

Ecosystem assets

A form of environmental assets that relate to diverse ecosystems. These are contiguous spaces of a specific ecosystem type characterized by a distinct set of biotic and abiotic components and their interactions.*

Ecosystem services

Ecosystem services provide benefits to business through various categories defined by the TNFD:*

1. **Provisioning services:** Benefits obtained by extracting or harvesting resources from ecosystems, such as timber and fuel wood from a forest, or freshwater from a river.
2. **Regulating and maintenance services:** Benefits derived from ecosystems' ability to regulate biological processes and influence climate, hydrological and biochemical cycles. These services help maintain environmental conditions that are beneficial to individuals and society. For example, the provision of freshwater relies on forests' capacity to absorb carbon and regulate climate change.
3. **Cultural services:** Experiential and intangible services associated with the qualities of ecosystems. The existence and functioning of ecosystems contribute to various cultural benefits. Examples include the recreational value of a forest or a coral reef for tourism.

Environmental assets

The naturally occurring living and non-living components of the earth, together constituting the biophysical environment, may provide benefits to humanity.*

Global Biodiversity Framework (GBF)

The Kunming-Montreal Global Biodiversity Framework (GBF) is an international agreement signed by 196 nations to address biodiversity loss by 2030. It aims to protect 30% of land and sea areas. The GBF has important implications for the financial sector, highlighting the role of finance in both perpetuating biodiversity loss and finding solutions.

Nature

The natural world, with an emphasis on the diversity of living organisms (including people) and their interactions among themselves and with their environment.*

Natural capital

The stock of renewable and nonrenewable natural resources (e.g., plants, animals, air, water, soils, minerals) combine to yield a flow of benefits to people.*

Nature-related disclosures

Nature-related disclosures refer to the reporting of information by companies and organizations about their impacts on nature, biodiversity and ecosystem services. These disclosures provide transparency and enable stakeholders to assess environmental performance and sustainability. They cover aspects such as resource use, conservation efforts, habitat management and integration

of nature considerations into business strategies. Standardized frameworks like the TNFD guide these disclosures, promoting accountability and conservation of the natural environment.

Science-Based Targets Network (SBTN)

A collaboration of global nonprofits and organizations working together to help companies and cities set science-based targets for earth's systems. It aims to guide them in addressing their impacts and dependencies on nature across their value chains.

Science-Based Targets Network (SBTN) mitigation hierarchy

The SBTN mitigation hierarchy functions as a framework that directs companies in their endeavors to decrease greenhouse gas emissions and address environmental impacts. It offers a structured approach for companies to prioritize their actions, ensuring they align with scientific targets and adhere to the best practices of environmental sustainability.

Task Force on Nature-related Financial Disclosures (TNFD)

An initiative that provides a standardized approach for companies and financial institutions to assess and disclose risks, opportunities and impacts related to nature. By integrating nature-related considerations into financial decision-making, the TNFD aims to enhance transparency and enable informed choices.

* As defined by the TNFD.³⁵

³⁵ "Concepts and definitions," *TNFD website*, <https://framework.tnfd.global/concepts-and-definitions/>, accessed July 2023.

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