

Below the surface

CDP snapshot on Principal Adverse Impacts (PAI)

March 2024



Key findings from CDP's analysis on 2023 corporate impacts on the environment



1

Companies may be **underreporting or underestimating** the risks and impacts associated with their activities - only 140 companies out of over 23,200 reported on all the adverse impact metrics captured by CDP.



2

Scope 1 GHG emissions decreased by 4.3% since 2019. However, companies in the most emitting sectors – materials and power generation – only reduced their annual emissions by 0.5% and 1.5% respectively.



3

Energy consumption has stayed stable since 2020, while the share of renewable energy consumption increased to around 25%. The result is a 74% increase in consumption from renewable sources since 2019.



4

When it comes to targets, ambition pays off: overall, around 29% of companies had set **mid-term targets** in 2020 and they are outperforming their peers for Scope 1 emissions reductions.



5

CDP provides unprecedented access to entity-level data at scale on emissions to water and biodiversity Principal Adverse Impacts (PAI) indicators.



6

Among over 1,500 companies sourcing water from stress areas, approximately one in four is sourcing over half of their water from these areas.



7

Four times as many companies do not assess their exposure to **biodiversity-sensitive areas** compared to those that disclose it.

Introduction

This data factsheet explores corporate disclosures through CDP in 2023 on several adverse impact indicators across the themes of climate, water, forests and biodiversity.

The identification and disclosure of adverse impacts¹, as well as their minimization, are key principles that companies should follow to adhere to international frameworks of responsible business conduct². Since the adoption of the Sustainable Finance Disclosure Regulation (SFDR) in 2019, investors managing and making financial products available in the EU should disclose how they are considering adverse impacts in investment decisions and be transparent about the associated negative environmental and societal impacts.



Sustainable Finance Disclosure Regulation (SFDR) and adverse impacts

The Sustainable Finance Disclosure Regulation (SFDR) aims to increase transparency across capital markets and set sustainability-related disclosure obligations for financial entities and products.

Under the SFDR, financial institutions operating in the EU must disclose the Principal Adverse Impacts (PAI) - negative impacts of their portfolio companies on the environment and society. CDP collects data on eight out of the nine environmental PAI indicators, which are mandatory for disclosures, and a number of additional adverse impacts related to water and land.

The SFDR provides a list of specific adverse impact indicators, including **greenhouse gas (GHG) emissions, energy consumption, pollution to water and negative effects on biodiversity-sensitive areas**. These indicators are an **integral part of the European Sustainability Reporting Standards (ESRS)**, which will shape corporate sustainability disclosures in the EU from 2025. They also closely overlap with data points in the Global Reporting Initiative (GRI) and the latest recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD).

In light of the increasing importance of such disclosures, three key reasons underscore this CDP analysis. **Firstly**, measuring Principal Adverse Impacts (PAI) can drive corporate engagement, as PAI performance could potentially lead to exclusions of companies from investment funds, unless they take measures to address their material impacts. **Secondly**, concerns are growing among investors about the quality and availability of self-reported PAI data and about the large differences in estimated data when comparing multiple sources. This analysis aims to use reported data to explore what steps could be taken to improve transparency and comparability in reporting practices. **Thirdly**, our research looks at the interplay between materiality assessments and adverse impact indicators – our findings on water pollution show the importance of rigorous materiality assessment and comprehensive corporate reporting.

The analysis of these commonly used but sometimes not widely available indicators is a **useful starting point to assess corporate progress in identifying and reducing their environmental impacts**.

¹ When an activity causes harm, loss or damage to nature and climate, it creates pressure points known as adverse impacts.

² OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. [Source](#).

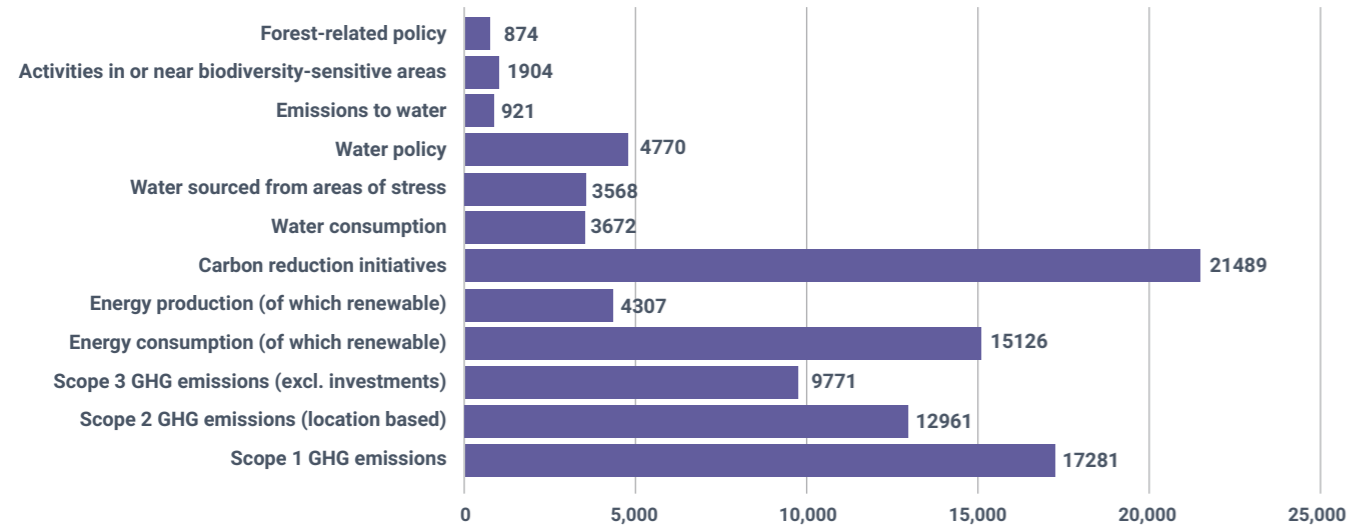
Insights on PAI disclosures and materiality

In 2023, over 23,200 companies globally disclosed through CDP. The chart below highlights how many of those answered the questions related to the adverse impact indicators mapped to the CDP questionnaire³.

Around 140 companies provided information on all the indicators CDP mapped to SFDR adverse impacts (listed in Figure 1), excluding the two indicators that are specific to sectors of activity – energy production and Scope 3 portfolio emissions.

These indicators contain **impact metrics**, such as GHG emissions, as well as **indicators of measures taken to address those impacts**, like policies and actions such as carbon reduction initiatives implemented or planned by the company. There are fewer companies providing information on water and forest-related adverse impact indicators compared to climate indicators, which is an indication that nature reporting still lags behind climate⁴.

Figure 1
Number of companies answering CDP questions mapped to SFDR adverse impact indicators



CDP questionnaires are built on question dependencies and looking into related questions can provide a **fuller picture of companies' assessment of their adverse impacts**. For example, while only 4,307 companies disclosed the amount of energy they produced in the reporting year, the question is not actually relevant to every discloser because over 13,000 companies reported not generating steam, heat, electricity or cooling (SHEC) at all.

Similarly, while only 900 companies reported their emissions to water, around 1,300 companies reported that this sustainability matter was not relevant to them and 1,140 did not monitor this. Out of those two latter cases, 842 companies (35%) have main activities that are flagged as having a direct critical impact on water pollution⁵. This analysis reveals that **companies may be underreporting or underestimating the risks and impacts associated with their activities**.

³ 2023 mapping of SFDR adverse impact indicators to CDP questionnaires is available [here](#).
⁴ See [CDP sampling methodologies](#). In 2023, approximately 12,000 companies were selected to respond to the water questionnaire compared to the over 60,000 for the climate change questionnaire.
⁵ See [CDP Water Impact Matrix](#).

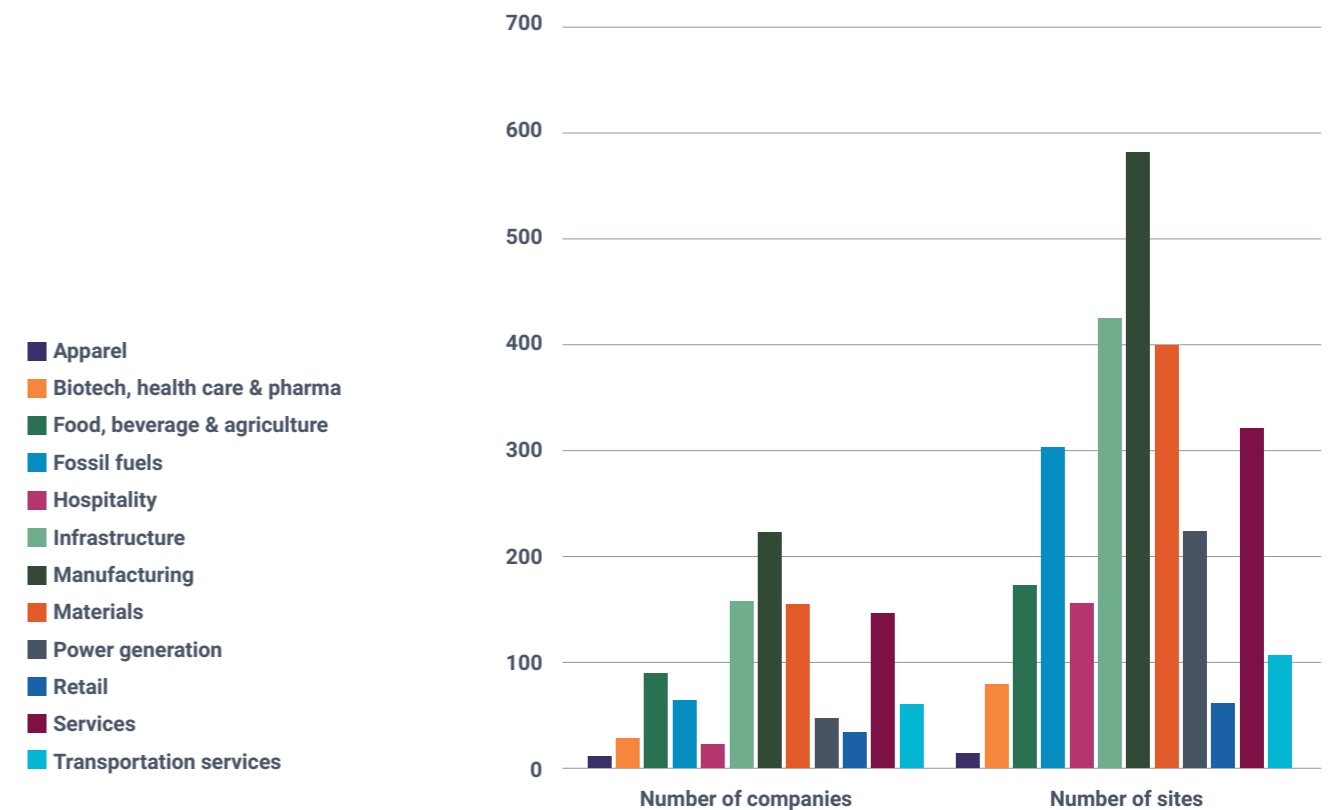
Trends from environmental impact disclosures

While the previous section focuses on whether companies reported or not, the following analysis dives into companies' answers to evaluate impact.

Biodiversity-sensitive areas

Out of the total number of CDP disclosing companies, **1,100 affirmed having activities in or near biodiversity-sensitive areas** while 3,900 did not assess this and 5,900 stated having no such activities. These companies, 34% of which are headquartered in the EU, then detailed the impact of those activities. Over 2,800 individual sites, mostly in the **manufacturing, infrastructure and materials sectors**, were reported in or near biodiversity-sensitive areas.

Figure 2
Number of companies reporting sites in or near biodiversity-sensitive areas and number of sites disclosed per sector



Out of the sites reported, over **1,500 were assessed as having a potential negative impact on biodiversity, but in most cases, mitigation measures were implemented**.

Trends from environmental impact disclosures (continued)

Figure 3
Is the company sourcing from water-stressed areas?

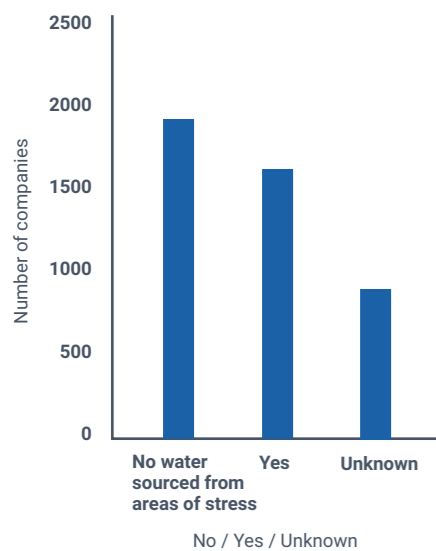
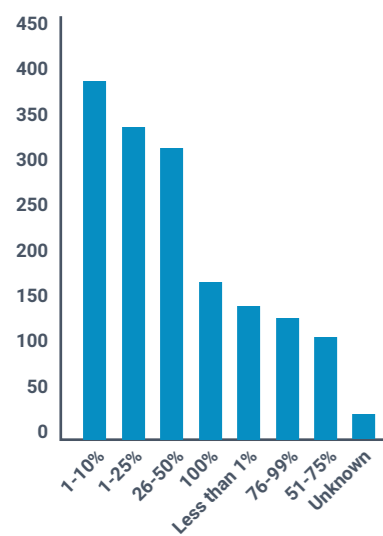


Figure 4
Share of companies total water withdrawal sourced from water-stressed areas



The most disclosed mitigation measures were operational controls, followed by abatement controls and project design. Over 400 sites were reported to use biodiversity offsets as mitigation measures and approximately 100 sites did not have any mitigation measures implemented despite potential negative impacts (predominantly hotels and producers of chemicals and other materials). **The impact assessment was not done for over 500 sites in or near biodiversity-sensitive areas** – most of which are in Key Biodiversity Areas (KBAs) or in the EU Natura 2000 network of protected areas⁶.

There are over **16,000 KBAs identified across the globe**, 40% of which are forests and 34% wetlands habitats. This means **impacts on these key biodiversity areas are intrinsically related to other environmental issues**, including deforestation and water security.

Major wetland losses in the last decades have contributed to amplifying the global water crisis⁶. Among key drivers is unsustainable water use, including the withdrawal of ground and surface water for industrial purposes. The latest UN World Water Development Report (2023)⁷ finds that little to no progress has been made to achieve Sustainable Development Goal 6 (related to water and sanitation) and the levels of water stress increased in many regions since 2008.

Water stress

In 2023, nearly **2,000 companies disclosed to CDP they were not sourcing water from areas of stress**. However, more than 1,500 companies, **over 35%, were found to be sourcing water from those areas**, where the demand for water is equal to a large share of available supply, which can pose risks to the neighboring communities.

Of these 1,500 companies, **over 400 companies are sourcing more than 50% of their water from water-stressed areas⁸**.

The availability of water is also affected by the impact of climate change and rising temperatures. Climate change mitigation and our ability to limit temperature rising above 1.5°C are highly dependent on GHG emissions reduction efforts and the transformation of our energy systems.

⁶ See [Key Biodiversity Areas](#) and the [Natura 2000 protected areas network](#).

⁶ Source: [The Convention on Wetlands](#)

⁷ Source: [UNESCO](#)

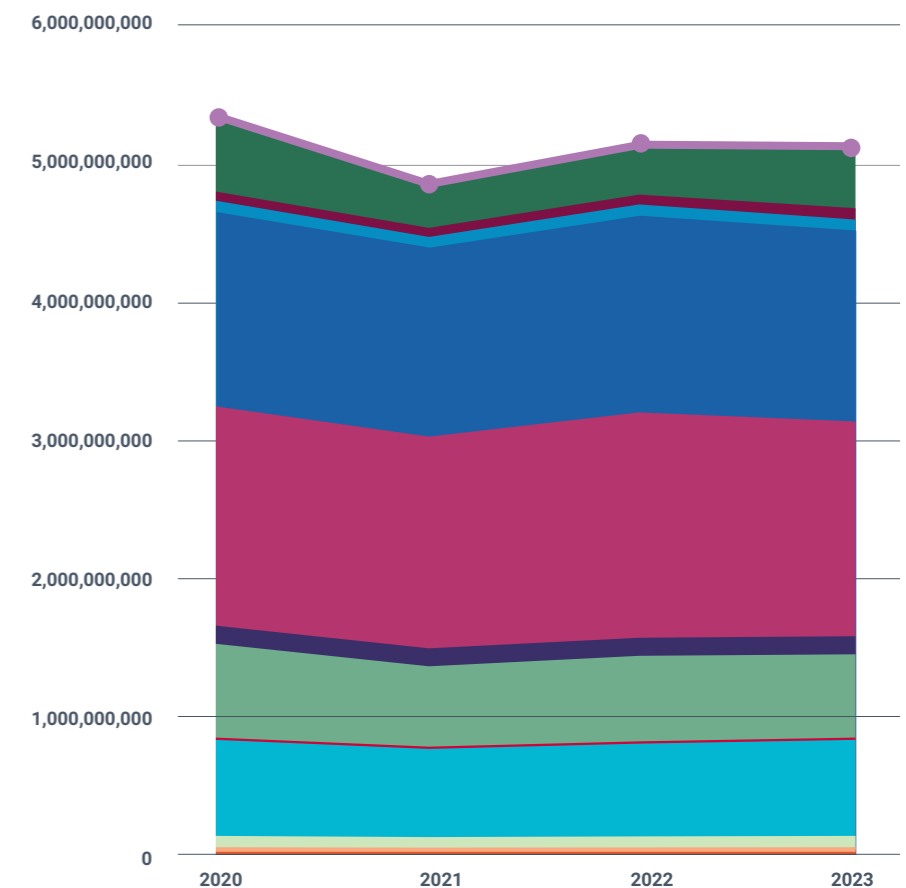
⁸ Source: [Our World in Data](#)

Scope 1 GHG emissions

Annual Scope 1 GHG emissions trends decreased by 4.3%, or 229 MT CO₂e, **since 2019** – based on a sample of around 2,300 companies that have disclosed Scope 1 emissions data through CDP every year from 2020 to 2023. 2021's sharp decrease corresponds to the Covid-related fall in emissions from economic activity in 2020⁹.

Sectoral trends vary, with the largest increase from the apparel (38%), retail (28%) and food, beverage and agriculture (14%) sectors. **Companies in the most emitting sectors** – materials and power generation – reduced their emission by 1.5% and 4.5% respectively over the three-year period, or 0.5% and 1.5% annually¹⁰. **This falls short of the 7% annual reduction rates required** from the power generation sector between 2022 and 2030 in the latest International Energy Agency's Net-Zero Emissions scenario.

Figure 5
Scope 1 GHG emissions trends, in tonnes per sector (panel of companies reporting to CDP since 2020)



⁹ 2020 reported data covers 2019 corporate emissions. Note that this applies for the other years displayed in charts in this report (for example, the latest CDP disclosures from 2023 cover the year 2022).

¹⁰ Only reported data reviewed for quality checks following CDP methodology were included in this analysis.

Full GHG Emissions CDP Data Methodology [here](#).

Trends from environmental impact disclosures (continued)

⚠️ SHEC energy consumption

The steam, heat, electricity, cooling (SHEC) energy consumption of around 1,900 companies stayed stable on average, with a slight increase since the pre-Covid-19 pandemic period. The share of renewable energy consumption in their total consumption increased to around 25%, resulting in a **74% increase in consumption from renewable sources since 2019**¹¹.

The International Energy Agency's Net-Zero Emissions scenario suggests that total energy consumption, including fuels, should decrease but with a strong increase in the share of electricity consumed.

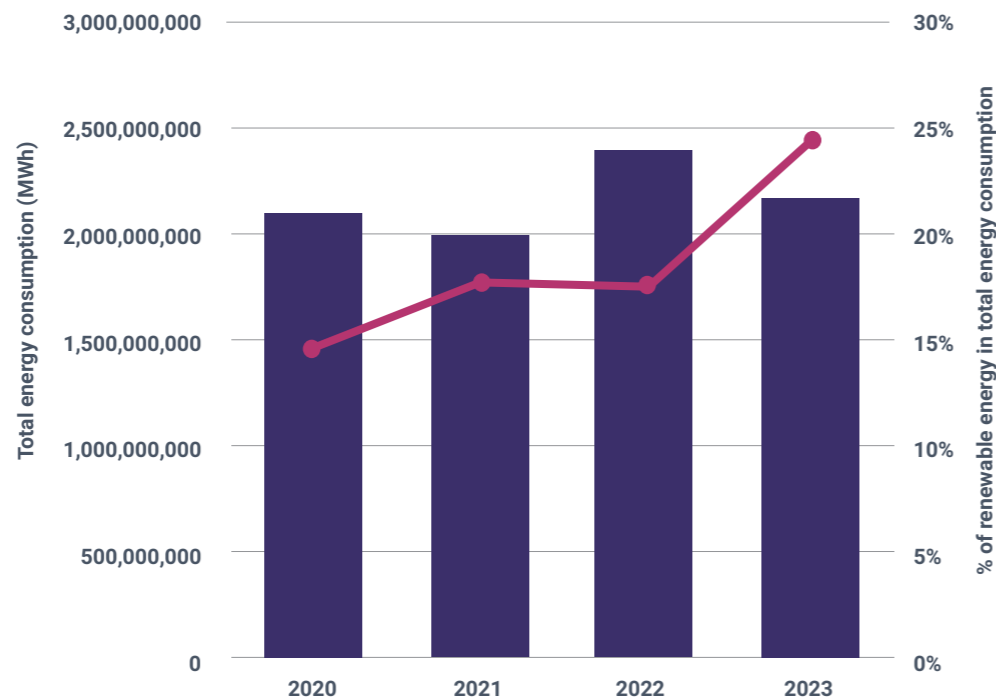


Figure 6
Total energy consumption trends (for panel of companies reporting consistently through CDP since 2020) and share of renewables in this total, in MWh

■ Total (lhs)
● % renewable (rhs)

¹¹ 527 million MWh consumed from renewable sources out of a total of 2 billion MWh in 2022, based on 2023 CDP disclosures.

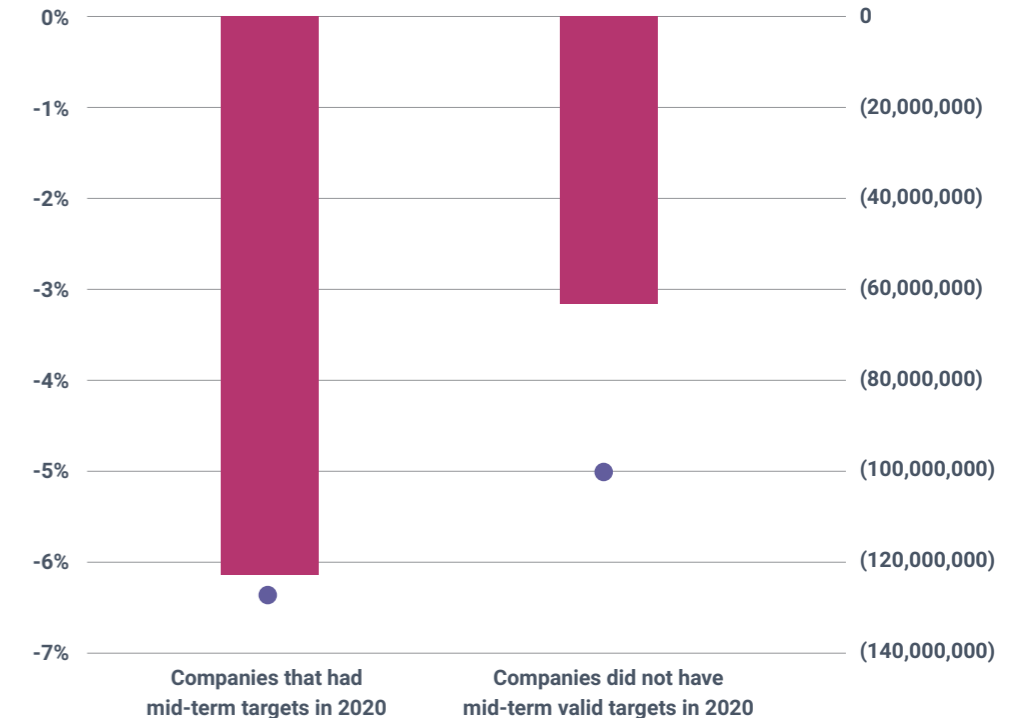
🎯 Targets and actions

In the 2023 disclosures through CDP, nearly 13,000 companies reported having carbon reduction initiatives implemented or planned, and over 10,000 companies reported having some form of emissions reduction target. Still, actions or targets may differ in their level of ambition compared with a 1.5°C trajectory.

Out of the sample of 2,300 companies used to analyze Scope 1 emissions trends in the previous section, **close to 29% (671 companies) had a valid mid-term target (2025-2034 horizon) in 2020**, according to the criteria defined in the CDP/WWF Temperature Ratings Methodology¹².

Figure 7
Scope 1 GHG emissions reduction over a four-year period for companies with and without targets

■ % decrease of Scope 1 GHG emissions from 2020 to 2023 (lhs)
● Absolute decrease of Scope 1 GHG emissions from 2020 to 2023 in tonnes (rhs)

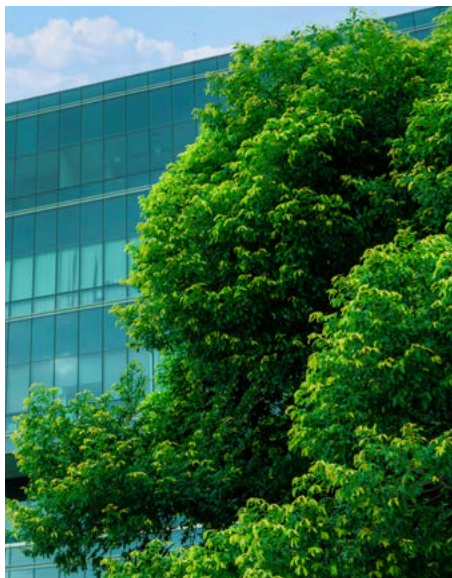


The total Scope 1 GHG emissions of this set of companies decreased over time. Furthermore, **those companies that set valid targets in 2020 reported the greatest Scope 1 emissions reductions** in both absolute and relative terms. Representing a third of the sample, **they performed better than those with no set targets**.

Nevertheless, the ambition of the targets across companies and individual emissions trajectories can vary, as evidenced by some companies with valid targets increasing their emissions over the last three to four years.

¹² As applied in CDP's Net-Zero Alignment Dataset (formerly known as CDP's Temperature Ratings) since 2020.

Conclusion



Companies, financial institutions (FIs) and policymakers must take concrete actions and implement policies to address pressure points and dependencies on the climate and environment. The **adoption of comprehensive reporting, science-based targets, and the implementation of transition plans that reduce companies' environmental impacts** will be crucial in this regard.

Companies, FIs, and policymakers hold significant responsibility in the transition towards an economy that serves both people and the planet. **We call upon:**

Corporates to prioritize disclosure against indicators relevant to them, identified through thorough materiality assessments, and adopt science-based targets for climate and nature. The current gaps in water emissions disclosures highlight underreporting and the need to identify and transparently disclose against material dependencies, impacts, risks and opportunities. While companies in the EU can gradually disclose these environmental impacts, starting in 2025, shareholders and lenders need this information now – a proactive and comprehensive reporting approach is crucial for fostering transparency and responsible business conduct.

Financial institutions to leverage their pivotal role in bridging this data availability gap. They should actively advocate for and demand comprehensive data disclosure from corporates – for example, by requesting environmental information through CDP and encouraging investees and counterparties to disclose, to reduce the need for estimated data. By driving transparency and improving the availability of high-quality data, FIs will be well-positioned to make informed capital allocation decisions and align their portfolios to minimize adverse real economy environmental impacts.

Policymakers and financial regulators to address the data availability issue through the implementation of high-quality mandatory disclosure¹³ requirements. Robust and interoperable environmental reporting standards, clearly enforced and monitored, will fill crucial data gaps. They will also facilitate comparability across regions and reduce compliance burdens by creating a level playing field. Additionally, they will set the stage for adverse impact indicators to influence broader sustainable finance regulations – for example, by ensuring PAI indicators are coherent and suitable for fund-level reporting requirements and selection criteria.



CDP Europe gratefully acknowledges EU funding support. The content of this report is the sole responsibility of CDP Europe and can under no circumstances be regarded as reflecting the position of the European Union.

¹³ CDP's Principles for High-Quality Mandatory Disclosure (HQMD) were presented to the 4th meeting of the Sustainable Finance Working Group at the India G20 in 2023 and aim to support policymakers and financial market regulators design comprehensive, high-quality, and effective mandatory environmental disclosure regimes.