

ANALYSIS OF CA100+ COMPANY DATA for CDP Investor Signatories



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Investors have the power to drive forward greater accountability and transparency from top emitters.

FOREWORD

Emily S. Kreps

GLOBAL DIRECTOR, CAPITAL MARKETS, CDP

Climate change has pushed the world to the brink. With precious forests burning, hurricanes destroying communities, and floods and droughts wreaking havoc and pushing entire nations into famine, war and mass migration, the destructive power of climate change cannot be ignored.

The global economy has ten years to halve emissions if we are to avoid the worst possible impacts of climate change. We must act with the greatest urgency.

Reliable and easily applied information is the basis for effective environmental action.

Three years ago, investors around the world gathered under the Climate Action 100+ initiative to push the world's largest corporate greenhouse gas emitters to decarbonize rapidly. Data collected through CDP's global disclosure platform helped the initiative select the 100 companies targeted in the initial campaign. About 40 of them are "systemically important emitters" that together account for two-thirds of annual global industrial emissions, while the remainder have been identified as potential drivers of the clean-energy transition.

Without transparency, there can be no accountability; and without accountability, any sustainability effort risks falling short.

In this report, we have provided analysis and samples of the full set of environmental data available to CDP through company-level disclosure on climate change, deforestation and water security of the 160 companies targeted by the CA100+ initiative.

Using this data, investors can track the global economy's progress toward a world of low carbon emissions, secure water supplies and preserved forests. The subset of curated data of the CA100+ companies is available to CDP investor signatories through their online dashboard. The CDP investor signatory group includes 515 of the world's largest investors and financial institutions, with a combined US\$106 trillion in assets. This group is the requesting authority for CDP's annual request for environmental disclosures from thousands of companies.

Investors have the leverage to ensure greater accountability and transparency from top emitters. They can – and they must – use their combined influence to push for swifter and stronger environmental action. Without it, investments may yield vanishing returns in an unhealthy and unstable world.

Yours in action,

Emily S. Kreps
GLOBAL DIRECTOR, CAPITAL MARKETS, CDP

INTRODUCTION

Today, systemic risk posed by environmental damage is under the spotlight. The world is now more aware than ever that deforestation raises the risk of coronaviruses, and that the spread of infectious disease is likely to increase as habitat loss makes human-animal contact¹ more likely. Parallels are drawn between the social and economic consequences of COVID-19 and the shocks that climate change can and already is causing².

Investors and other financial market players, such as the European Central Bank and 42 members of the Network for Greening the Financial System, increasingly refer to the importance of addressing financial stability risks from both climate change and environmental destruction. Beyond climate impact from emissions, there is growing recognition of the need for deeper integration of water security and deforestation into due diligence processes. Climate change cannot be viewed in isolation from other environmental factors; investors understand these issues are interrelated and therefore must be managed in tandem. The risks, opportunities and impacts relating to climate change, tropical deforestation and water security frequently intersect. A holistic approach must be adopted to improve resiliency and future-proof the global financial system.

Alarm bells of a changing world rang loudly in 2019. High intensity storms included Cyclone Idai, which devastated Mozambique, killing more than 1,000 people in March; Hurricane Dorian, which ravaged the Bahamas in September, and Typhoon Hagibis, which hit Japan in October, costing US\$10 billion in damages. In summer 2019, heatwaves hit large areas of Europe, the U.S. and China, creating not only transport disruptions but also posing health risks to its populations. Fires in Australia and even within the Arctic Circle killed billions of animals and destroyed and threatened human lives. In Caracas, Chennai and Harare, millions of people's taps ran dry and disease outbreaks often followed. Deforestation in Brazil's Amazon rainforest reached unprecedented levels of destruction.

We are already experiencing 1 degree of warming on average globally and are headed for a 3.2 degrees Celsius rise over pre-industrial levels. We are running out of water faster than we thought, polluting what we have left at unprecedented rates and losing ground in the fight to protect tropical forests.

Action on the environment is needed now to secure financial stability. The world's largest companies, and those financing them, have a significant part to play. In this report, we present our analysis of key information CA100+ companies are reporting through CDP's annual disclosure platform. Supplemented with company-by-company benchmark reports and response data which can be found on CDP's investor portal for signatories, it is a comprehensive resource to support meaningful corporate engagement by all investor signatories of the CA100+ initiative.

¹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5904276/>

² <https://www.mckinsey.com/business-functions/sustainability/how-we-help-clients>

KEY FINDINGS

To ensure we achieve net zero emissions and mitigate some of climate change's worst impacts, the protection of our forests and water resources is vital. Every year, CDP requests companies answer climate change, water security and forests questionnaires on behalf of a growing cohort of capital market actors. In 2020, CDP's environmental questionnaires were backed by over 515 financial institutions with more than US\$106 trillion in assets. As a result of a 20-year effort, CDP now holds the world's largest database of comparable, consistent and standardized corporate environmental data.

This data forms the basis of this report. While the CA100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change, this report does not focus on carbon emissions alone and includes relevant insights from disclosures on water security and forest issues.

WHY FOCUS ON FORESTS AND WATER SECURITY?

Forest ecosystems play a critical role in commodity and capital markets. They provide ecological services that underpin the productivity of agricultural commodities and our food security, such as supporting pollination and pest control, maintaining soil health, controlling pollution and regulating climate and water supply. Despite the importance of standing forests, agricultural commodity production is responsible for over 40% of tropical and subtropical deforestation³ and around 11% of global GHG emissions are from deforestation and conversion of natural habitats for human use.⁴ Halting deforestation is a global imperative, and governments, companies and financial institutions are increasingly calling for urgent action. Increased attention and regulation on this topic are leaving ill-prepared companies at risk. Regulatory changes have resulted in stranded assets, reputational issues have resulted in a loss of license to operate and, increasingly, physical impacts due to climate change are impacting commodity value chains.

A stable supply of sufficient volumes of clean water in the right place, at the right time, is essential for all the water sample within the CA100+ group to succeed. The latest hydrological science however, tells us that this can no longer be guaranteed. As such, many of the assumptions made in projecting and planning for growth amongst the CA100+ water sample⁵ may be at odds with hydro-reality. In response, governments are moving to address the supply-demand imbalance and eliminate pollution from their jurisdictions, leaving companies exposed to a variety of physical, transition and reputational risks, the majority of which are anticipated to impact within the next one to three years.

Moreover, these drivers of risks and impacts across climate change, water security and deforestation overlap and compound each other. For example, a warming climate both increases the risk of droughts and the chance of forest fires. Deforestation both increases global warming and reduces the quantity and quality of water supply. This increases the need to view these issues holistically as opposed to in silos.

³ <http://www.fao.org/publications/sofo/2016/en/>

⁴ <https://www.ipcc.ch/srccl/>

⁵ The water sample within the CA100+ group

① TCFD-aligned disclosure is increasing but there are still clear gaps, particularly on issues related to forests.

In 2018, CDP aligned its climate, water security and forests questionnaires with the 11 elements of the TCFD reporting framework. All 160 CA100+ companies were asked to disclose climate-related data via CDP in 2019. The majority of these companies (over 75%) responded, with a large portion disclosing strongly against all 11 of the core TCFD recommendations, and as such, are "TCFD-ready." While corporate disclosure on climate is strong, there are critical gaps related to water security and forests. Of the 138 CA100+ companies asked to disclose water-related data via CDP, just 57% did so (now referred to as CA100+ water sample⁶). And of the 65 CA100+ asked to disclose forest-related data, just 25% chose to respond (now referred to as the CA100+ forest sample⁷). The rate of disclosure, particularly on forests, is failing to keep pace with investor appetite for this data and CA100+ investors should aim to close this gap.

② While CA100+ respondents acknowledge exposure to a plethora of environmental risks, investors should pay more attention to the blind spots in corporate disclosure. These include physical risks along value chains for climate and forests and transition risks for water.

These risks could have significant consequences for investments. While there is increasing understanding of the potential financial implications of climate risks, more attention should be paid to water- and forest-specific risks too. Even with only around a third of CA100+ companies reporting financial figures to CDP on water-related issues, the combined potential financial implications of risks being reported are significant, in the range of US\$44-77 billion.

⁶ The water sample within the CA100+ group

⁷ The forest sample within the CA100+ group

3 More senior oversight is needed, backed up by tangible incentives, to improve on environmental governance in CA100+ respondents.

While the majority of CA100+ respondents disclose that they have board-level oversight on climate, water and forests issues, not enough is held by critical C-suite or board directors (just over half of the companies report this). These positions are identified as being particularly pertinent as they escalate environmental issues from being siloed in a CSR/ ESG department toward broader integration in organization-wide practices. This enables a comprehensive response to environmental risk, often drawing on the expertise of other vital departments such as finance, risk and legal. Our analysis further found that offering incentives to senior leadership to ensure environmental goals are achieved is more of an established practice with climate change, while it remains nascent for water security and forests.

4 CA100+ respondents have started to act, but to be aligned with a well-below 1.5°, water-secure world, efforts will need to ramp up significantly.

While it was encouraging to find key environmental metrics are broadly being disclosed, investors cannot be sure that these key metrics are being monitored with enough depth or that companies have the right targets in place to decrease their impact:

▼ **CLIMATE:** Total reported direct and indirect emissions of CA100+ respondents was ~17.86 billion mtCO₂e and while emissions reductions are being reported, these are dwarfed by their total emissions. The vast majority of these emissions lie in scope 3 (value chain) emissions. With a growing number of CA100+ respondents setting targets aligned with science (~30% companies to date), we should see more reductions being reported in the future as companies decarbonize to meet their targets. Investors should encourage more of this type of action.

▼ **WATER SECURITY:** Water consumption and withdrawals are still increasing, despite 85% of CA100+ water sample⁸ respondents having water use reduction targets. Worrying still is the perceived lack of ambition to reduce pollution, suggested by the fact that just 20% of respondents have any form of pollution-related target.

▼ **FORESTS:** While it is good to see a focus on traceability and certification of key forest-related commodities, implementation by reporting companies is limited. Only about a third of the reporting companies can trace more than 90% of their commodities to a point beyond the country of origin or have robust certification in place. These figures drop significantly for companies engaging with cattle products. Reporting companies have yet to show the required ambition by setting targets that would close these gaps. Only nine companies report quantified targets for increasing sustainable production and/or consumption of commodities or tracing the commodities to their origin.

5 CA100+ respondents report that these issues are being integrated into their business strategies, however increased scrutiny is needed on the details of their transition plans.

Focus areas for investors:

▼ **CLIMATE:** Details on the transition plans should be explored in greater detail, questions should be asked as to corporate investment plans, business model changes, capital expenditure and R&D goals. Given that a large proportion of their emissions lie in the use of sold products and services in the value chain of these companies, plans need to directly address this.

▼ **WATER SECURITY:** Details on how water security is being integrated into financial planning and business objectives should be considered, particularly in terms of anticipated growth in regions of significant water stress and the value at risk CA100+ water sample⁸ companies face from worsening water security.

▼ **FORESTS:** Details on the policies companies have on deforestation, specifically requiring they be made publicly available; including a commitment to eliminate deforestation and/or conversion of natural habitats covering all company operations and supply chains.

⁸ The water sample within the CA100+ group

CDP ALIGNMENT WITH TCFD

CDP was an early supporter and adopter of the Task Force on Climate-related Financial Disclosures' recommendations. Following the release of the recommendations in June 2017, CDP aligned its climate questionnaire⁹ and sector-specific questions with the TCFD's recommendations. Our aim for this harmonization is to help drive adoption of the TCFD recommendations by reporting companies, minimize the reporting effort and speed up the generation of decision-useful information for data users.

CDP's 2019 climate change questionnaire contains over 25 questions that have been tagged with alignment to the TCFD. These questions are contained within the Governance, Risks & Opportunities, Strategy, Targets and Emissions modules.

Water security and deforestation are a step beyond the climate-focused remit of the TCFD. Nevertheless, since 2018, CDP's water security and deforestation questionnaires have been inspired by the TCFD recommendations and organized in a similar structure, covering topics such as Governance, Strategy, Metrics and Targets. This helps companies organize their environmental management according to similar principles of good practice and will prepare them for increasing environmental disclosure demands.

⁹ For further information on CDP's climate change questionnaire and its alignment with the TCFD's recommendations, please read [CDP's TCFD Technical Note](#)



DISCLOSURE

Environmental disclosure is a fundamental step in sound financial management. When a company is not transparent about how it is tracking and addressing environmental issues, investors can never be certain about a company's true risk. It is becoming clearer to a growing number of investors that a company's growth prospects are intrinsically tied to its ability to secure reliable access to a stable supply of water, and its efforts to eliminate pollution, end deforestation and avoid infrastructure failings, not to mention its ability to operate in an economy en route to being low-carbon.

How companies account for these issues in growth strategies and whether they invest in solutions is vital information. It is difficult, if not impossible, to evaluate a company's potential performance if its investments in, and governance of, these issues are hidden from view.

Unfortunately, investors still lack access to the data they need from some CA100+ companies, particularly on the issues of water security (with 43% of those invited to disclose failing to do so) and deforestation (with 75% of those invited to disclose failing to do so).

CLIMATE CHANGE

122 (76.3%) of the 160 CA100+ companies responded to investor requests to disclose climate-related data through CDP in 2019. 115 selected to respond publicly, meaning their response data would be available to parties beyond investors through CDP's website and data portal. 37 companies received investor requests to respond but declined.¹⁰ Of the 37 companies declining to respond, the largest proportion (16 companies) are in the fossil fuels industry.

A large portion of companies disclosing climate-related information through CDP are disclosing strongly against the TCFD. 91 companies (74.6%) report against all 11 of the core TCFD recommendations.¹¹ Of those not able to provide disclosures in line with the TCFD's recommendations, the most notable gap is in the Strategy core element, suggesting some companies may not yet be integrating climate-related issues into their business, strategy and financial planning.

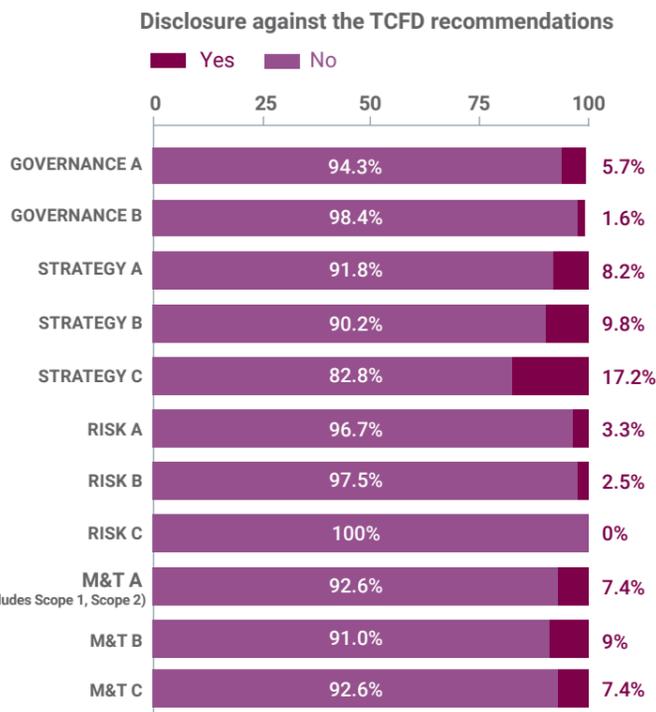


FIGURE 2 Climate-related disclosure against TCFD recommendations for 122 companies responding through CDP.

Number of CA100+ companies disclosing, by environmental theme

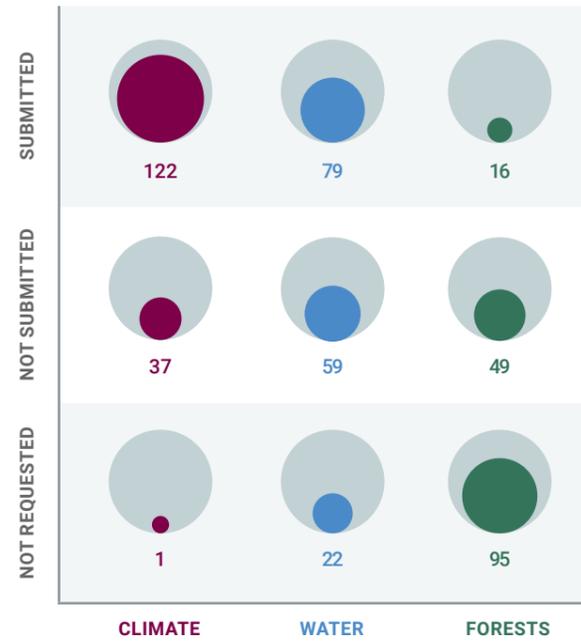


FIGURE 1 Disclosure through CDP among CA100+ companies by environmental theme.

HOW CDP IDENTIFIES COMPANIES WITH MATERIAL ENVIRONMENTAL IMPACTS AND RISKS FOR DISCLOSURE

The group of companies requested to disclose on climate change is constructed by combining a list of prioritized companies from different regional indexes or stock market indexes¹⁴ by market capitalization with a list of companies deemed to have considerable environmental impact.

Not all companies are asked to disclose against all three environmental risk categories. A subset of companies requested for climate change disclosure are also asked to disclose against one or both of the water or forests questionnaires, depending on whether they derive significant revenue from business practices that have the potential to detrimentally impact water resources or forests.

The same applies to the companies that form the CA100+. All CA100+ companies, however, feature in CDP's integrated high-impact list – a group of over 3300 companies identified by CDP as critical in creating a tipping point in the market due to their environmental impact.

¹⁴ Indexes used to create the list of companies requested to disclose to CDP: MSCI ACWI, Brazil Broad Based IBR Index, S&P/IFCI Latin America price index, FTSE All-World Asia Pacific Index, FTSE China A600 Index, FTSE MIB Index, FTSE Japan Index, FTSE Global All Cap Index, FTSE Developed Index, FTSE Eurofirst 300 Index, FTSE All-Share Index, FTSE Fledgling Index, FTSE Italia Small Cap Index, FTSE Italia Mid Cap Index, FTSE/JSE Africa All Share Index, S&P/ASX 200 S&P Australia, NZX 50 FF Gross Index, S&P/IFCI Carbon Efficient. For more details please see the methodology document.

WATER SECURITY

In 2019, 138 CA100+ companies were requested to provide water-related data to investors via CDP. 79 (57%) responded.¹² These companies (CA100+ water sample) were requested to disclose because they generate a substantial proportion of revenue from industrial activities that have the potential to negatively impact water quantity and/or quality across the entire value chain. Further information on our approach, which forms the basis of our CA100+ water sample¹³ impact benchmark, can be found [here](#). Of the 59 companies declining to respond, the largest portion (24 companies) are in the fossil fuels industry.

In 2018 CDP aligned its water security questionnaire with the TCFD thematic areas of governance, strategy, risk management and metrics and targets. Companies disclosing via CDP are therefore able to report against the water-related indicators suggested for consideration by the TCFD, such as number of assets tied to high or extremely stressed basins, use of internal price on water and water-related CapEx. Of the 138 CA100+ water sample, only 46 were able to put a price on their water risks.

MURKY WATERS

Coal, oil, and gas development pose threats to waterways and groundwater. Coal mining operations wash acid runoff into streams, rivers and lakes and dump vast quantities of unwanted rock and soil into streams. Oil spills and leaks during extraction or transport can pollute drinking water sources and jeopardize entire freshwater or ocean ecosystems. Fracking and its toxic fluids have also been found to contaminate drinking water. Meanwhile, all drilling, fracking and mining operations generate enormous volumes of wastewater, which can be laden with heavy metals, radioactive materials and other pollutants.

Industries store this waste in open-air pits or underground wells that can leak or overflow into waterways and contaminate aquifers with pollutants linked to cancer, birth defects, neurological damage and much more.

NATURAL RESOURCE DEFENCE COUNCIL

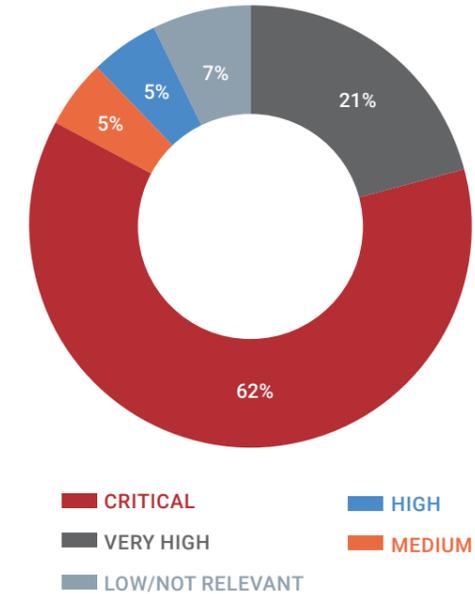


FIGURE 3 Water impact ranking of 2020 CA100+ companies

FORESTS

In 2019, 65 of the 160 CA100+ companies were requested to disclose information related to deforestation through CDP. Only 13 (25%) responded, including one pioneering Chinese company, China Shenhua Energy, that disclosed through CDP's new biodiversity-focused mining & coal sector questionnaire. Companies (CA100+ forest sample) are asked to report if any aspect of the value chain associated with the given industrial activity has the potential to detrimentally impact forests through their production or use of one or more of five focus commodities (palm oil, timber products, cattle products, soy, rubber).

The fact that only 13 companies disclosed information on one or more key deforestation commodities should be of significant concern and represents a lack of transparency across all sectors. While disclosure was highest among consumer goods companies (8 out of 12), disclosure was particularly poor among automobile and energy sector companies (2 out of 13 and 2 out of 16 respectively).

In 2020, a further nine CA100+ companies have been requested to disclose through CDP. As companies transition off fossil fuels and begin to rely more heavily on renewables (such as wood-based biomass, palm oil or soy-based biofuels) we expect additional CA100+ companies to be requested to disclose in the future.

¹⁰ The remaining company, Suzano Papel e Celulose was not in the original CA100+ list but after the 2019 merger of Suzano and Fibria, the new organization has been incorporated. Suzano Papel e Celulose did not receive a climate request in 2019.

¹¹ For this analysis, we assessed whether companies responded to the 25 TCFD-tagged questions in CDP's 2019 climate change questionnaire. In these questions companies were asked to respond to the data points required to achieve a disclosure point in CDP scoring. We did not assess the quality of their responses to these data points.

¹² In 2020, 146 of the 160 CA100+ companies are being requested to provide information on water via CDP.

¹³ The water sample within the CA100+ group

GOVERNANCE AND STRATEGY

Board-level oversight

Transitioning to a water secure, low-carbon economy not only means better water, climate and forests management, it requires significantly better and fundamentally different business management. To deliver real change, companies need a genuine and strategic response to these issues. The response must be led from the board room and driven throughout the organization.

CLIMATE CHANGE

121 companies (99.2%) reported board-level oversight of climate-related issues.¹⁵

However, just over half of these companies (66) report oversight of climate issues from key executive and/or board-level positions (defined here as CEO, CFO, CRO, Director on board, board chair or President). These positions are particularly pertinent as they escalate environmental issues from a CSR/ESG department consideration to a wider issue that can draw on the expertise of other vital departments such as finance, risk or legal. Interestingly, a higher number of these positions are offered incentives to deliver on climate-related goals (92 companies do so, 82 of which are offered monetary incentives).

WATER SECURITY

While 74 companies from the CA100+ water sample¹⁶ (94%) report having board-level oversight of water-related issues, 32 do not place this oversight in the hands of any of the key executive and/or board level positions outlined above. Further, just 26 offer C-suite water-related incentives for achieving water-related targets or goals. Of these, all are monetary in nature with a selection also offering recognition and other non-monetary rewards. CA100+ water sample¹⁶ respondents in the fossil fuel sector tend to dominate in offering C-suite water-related incentives (10), while just one mineral extraction firm, Vale, provides such an incentive.

FORESTS

11 of the 13 CA100+ forest sample¹⁷ (85%) report board level oversight of forest-related issues. Only seven report that forest-related issues are overseen by one of the five key board positions – including only one company using cattle products, a key driver of deforestation in the Amazon. Like water security, incentivizing good corporate governance of deforestation is not the norm. Just five CA100+ forest sample¹⁷ companies provide incentives to board or C-suite members for achieving commitments and targets.

Risks and opportunities

Analyzing the risks and opportunities these environmental issues could hold for a company is key to being able to align the business strategy to respond, as well as provide critical information for investors.

CLIMATE CHANGE

118 of 122 CA100+ companies report being exposed to substantive climate-related risks and opportunities, the key findings of which are summarized in Table 1.

Almost all CA100+ respondents report policy and legal risks as a potential driver for substantive impact when it comes to transition risk (110 of 118 companies), while only 37 report reputation as a potential driver. With fossil fuel companies being increasingly thrust into the spotlight when it comes to these issues, it's particularly surprising to see only 11 of the 27 fossil fuel companies identify reputational risks with the potential to have a substantive impact on their business.

98 of 122 CA100+ companies report physical risks, but there is a clear focus on direct operations, with only 28 companies identifying physical risks within their wider value chain of customers and supply chains. Again, this implies too narrow a focus when it comes to identifying risks which could have substantive impact on business.

Interestingly, two reporting companies identify being exposed to neither substantive climate-related risks or opportunities, both providing rationale that while they are exposed to climate change, there are no risks or opportunities that could have a substantive financial or strategic impact on their businesses.

It is surprising to find these major companies – identified by CA100+ investors as being critical for climate impact – reporting that they are not exposed to substantive risks and opportunities. Investors should ask companies why.

Risks		Opportunities	
PRIMARY CLIMATE-RELATED RISK DRIVER	COMPANY COUNT	PRIMARY CLIMATE-RELATED OPPORTUNITY DRIVER	COMPANY COUNT
Transition risks associated with policy and legal drivers: Increased pricing of GHG emissions	68	Development and/or expansion of low-emission goods and services	66
Acute physical impacts of a changing climate: Increased severity of extreme weather events such as cyclones and floods	61	Use of lower-emission sources of energy	41
Chronic physical impacts of a changing climate: Changes in precipitation patterns and extreme variability in weather patterns	47	Use of more efficient production and distribution processes	32
Transition risks associated with policy and legal drivers: Mandates on and regulation of existing products and services	44	Development of new products or services through R&D and innovation	30
Transition risks associated with changing markets: Changing customer behavior	32	Shift in consumer preferences	27

TABLE 1 Top 5 climate-related risks and opportunities identified by CA100+ responding companies.

¹⁵ The only company that disclosed they do not have board-level oversight is Dangote Cement PLC.

¹⁶ The water sample within the CA100+ group

¹⁷ The forests sample within the CA100+ group

WATER SECURITY

59 (75%) CA100+ water sample¹⁸ respondents report water-related risks with the potential to have a substantive financial or strategic impact on their business, with a total of 295 facilities exposed to water-related risks (FIGURE 4).

Between US\$44–77 billion of value was reported at risk by just 46 CA100+ water sample¹⁸ companies. The cost of managing those risks was estimated at US\$41 billion. In total, 270 water-related risks were reported by CA100+ water sample¹⁸ respondents, with the majority likely to hit within the next one to three years. The disclosure of potential financial impact figures stemming from water-related risks is a key gap identified, with 33 CA100+ water sample¹⁸ respondents unable to provide this data.

15 CA100+ water sample¹⁸ respondents, including First Energy and HeidelbergCement, identified that risks exist but none with the potential to have a substantive impact on their business, or that they are still in the process of evaluating these risks. A further five CA100+ water sample¹⁸ respondents report being exposed to substantive water-related risks but did not provide any details about the nature of these risks. This is the case for The Dow Chemical Company and China Shenhua Energy, which is surprising given the regulatory and physical water-related risks identified by their industry peers.

70 CA100+ water sample¹⁸ respondents identify substantive water-related opportunities, including Arcelor Mittal and Danone. The total money to be made from these opportunities ranges from US\$58–61 billion.

Risks		Opportunities	
PRIMARY WATER-RELATED RISK DRIVER	COMPANY COUNT	PRIMARY WATER-RELATED OPPORTUNITY DRIVER	COMPANY COUNT
Physical: Increased water scarcity and stress	38	Efficiency: Improved water efficiency in operations	32
Physical: Flooding	16	Efficiency: Cost savings	16
Physical: Drought	15	Resilience: Increased resilience to impacts of climate change	12
Regulatory: Regulation of discharge quality/volumes	11	Products and services: Increased sales of existing products/services	11
Physical: Severe weather events	8	Products and services: Sales of new products/services	7

TABLE 2 Top 5 water-related risks and opportunities identified by CA100+ water sample responding companies

Number of facilities reported at risk per country

▼ Much higher
 ▼ Higher
 ▼ About the same
 ▼ Lower
 ▼ Much lower

#: NUMBER OF FACILITIES REPORTED AT RISK PER COUNTRY

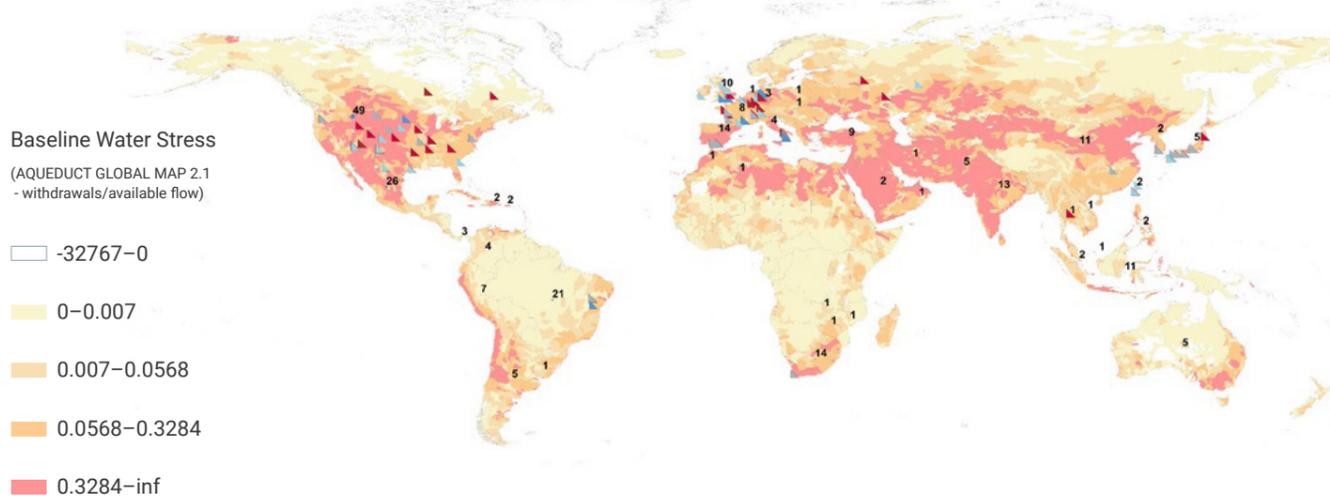


FIGURE 4 CA100+ water sample - water consumption and facilities at risk. Source: WRI AQUEDUCT/CDP Data. Note this is not the exact location of facilities within each country.

FORESTS

Across all commodities, ten CA100+ forest sample¹⁹ companies identify and report deforestation-related risks, their drivers and related impacts. With reputational and regulatory drivers dominating corporate concerns, it is surprising to not see more companies identify forest-related physical risk drivers.

The flip side of risk is opportunity. Taking action on deforestation can be a material benefit to companies; just five CA100+ forest sample¹⁹ companies estimate that these opportunities are worth over US\$798 million.

With growing global consumption patterns, demand for commodities is increasing. At the same time, available non-forest land for production is decreasing. Climate change is already posing a threat to the quality and quantity of produced commodities. These confounding factors suggest that CA100+ forest sample¹⁹ companies have a physical risk blind spot in their risk assessments.

To better understand this potential blind spot, we also assessed companies' risk assessment processes and procedures. Only nine of CA100+ forest sample¹⁹ include the availability of forest risk commodities and the quality of forest risk commodities in current risk assessments. With the quantity and quality of commodities already at risk from a changing climate, it would be prudent to include this in future.

Risks		Opportunities	
FOREST-RELATED RISK DRIVER	COMPANY COUNT	FOREST-RELATED OPPORTUNITY DRIVER	COMPANY COUNT
Reputational and markets: Increased stakeholder concern or negative stakeholder feedback	4	Products & services: Increased brand value	5
Reputational and markets: Availability of certified sustainable material	3	Markets: Driving demand for sustainable materials	3
Regulatory: Regulatory uncertainty	2	Products & services: Increased security of production	2
Reputational and markets: Negative media coverage	2	Other: Increased transparency	1
Reputational and markets: Increased cost of certified sustainable material	2	Resilience: Improved supply chain engagement	1

TABLE 3 Top 5 forest-related risks and opportunities identified by CA100+ forest sample responding companies

¹⁸ The water sample within the CA100+ group
¹⁹ The forests sample within the CA100+ group

Integrating environmental issues into strategy

Environmental issues need to be included in corporate strategies for companies to manage risks, realize opportunities and deliver on their strategic goals. Disclosure around how these issues are integrated into strategy provides an insight into the resilience of the business.

CLIMATE CHANGE

Scenario analysis

Almost all CA100+ respondents report that they integrate climate change risk into strategy. Due to data gaps, it is difficult to establish how effective this integration is, however, particularly with regards to the scenario analysis these companies are undertaking and if and how they are planning for the transition.

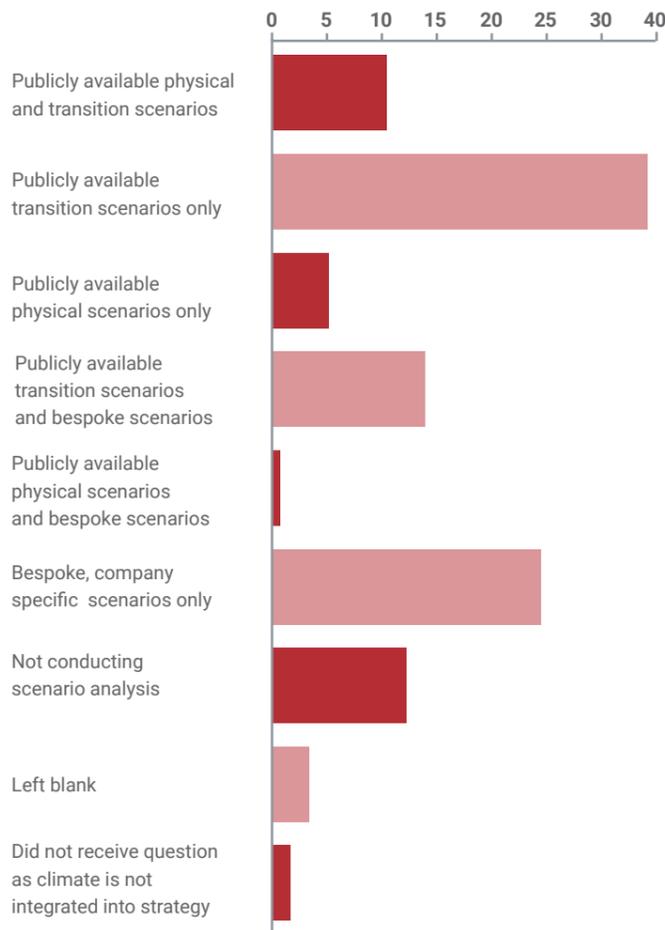


FIGURE 5 Climate-related scenario types explored by CA100+ responding companies

14 companies report not yet conducting scenario analysis, with the largest proportion (6 companies) coming from the materials sector. However, 13 of these companies disclose they anticipate conducting climate-related scenario analysis within the next two years. Companies that conduct scenario analysis focus on transition risks. Only 19 companies report the use of publicly available physical scenarios, 13 of which report the use of the IPCC's RCP8.5 scenario, a high emissions scenario based on a business-as-usual world.²⁰

Transition plans

106 CA100+ companies responding to CDP's climate change 2019 questionnaire were asked to respond to the sector-specific data points on low-carbon transition plans.²¹ Transition plans should define how the business model, its associated products and production methods, growth strategy and capital investments need to develop over time to respond to climate-related risks and capitalize on opportunities.

88 CA100+ companies report they have a transition plan in place and 47 refer to some key considerations for a low-carbon transition plan (note: some companies make multiple references):

- 35 companies reference investment plans;
- 16 companies reference R&D goals;
- 10 companies refer to carbon or climate neutrality;
- 9 companies note net zero targets; and
- 5 companies refer to capital expenditure.

While most companies report they have a transition plan in place, clear gaps exist when it comes to the details of these plans. Investors should be asking for more details.

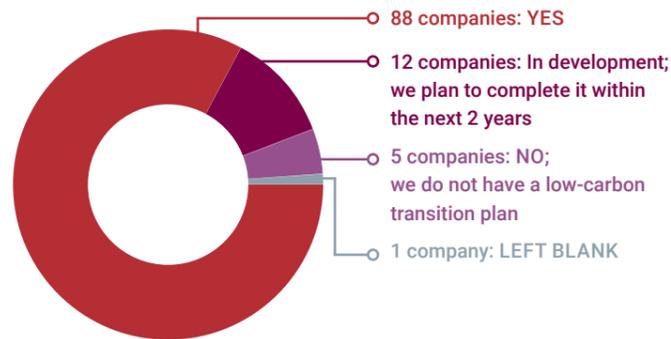


FIGURE 6 Low-carbon transition plans reported by CA100+

²⁰ In terms of transitional scenarios, the most common publicly available scenarios identified are the IEA's 2DS, Sustainable Development Scenario (SDS) and New Policy Scenario (NPS).

²¹ In 2018, CDP shifted its platform to accommodate sector-specific questions. These sector-specific questions are tailored toward material performance metrics per sector that have the most environmental impact. This also reduces the reporting burden for companies as they only receive questions that are relevant for their operations.

²² The water sample within the CA100+ group

²³ The forests sample within the CA100+ group

WATER SECURITY

Leading companies recognize that business-as-usual responses to business and water management are no longer sufficient to deal with the risks and opportunities they face. They are beginning to take steps to decouple growth from the depletion of water resources – transitioning away from water-intensive products or heavily polluting processes. Integrating water into financial planning, long-term objectives and having strategies for achieving these are crucial steps on this journey. Analysis of CA100+ water sample²² performance on this front is encouraging, suggesting that most water respondents are fully integrating water into strategic processes and procedures.

WATER-RELATED ACTIONS	YES	NO/LEFT BLANK
Water integrated in financial planning	61	18
Water integrated into strategy for achieving long-term objectives	67	12
Water integrated into long-term business objectives	66	13

TABLE 4 CA100+ water sample respondents

Water-related engagement along the value chain is an important aspect to enhance resilience. For example, food and beverage manufacturers should be promoting sustainable and regenerative agricultural practices across supply chains, and chemical and oil & gas giants should be engaging with customers to ensure the application and storage of the products they sell avoid pollution. 60 CA100+ water sample²² respondents (76%) report engaging with either suppliers, customers or value chain partners on water. All four CA100+ water sample²² food and beverage manufacturers take this step, as well as 11 fossil fuel respondents. Of the 19 (24%) not engaging on water across any aspect of the value chain, seven are from the fossil fuels industry, five from the power generation industry and four from the manufacturing sector.

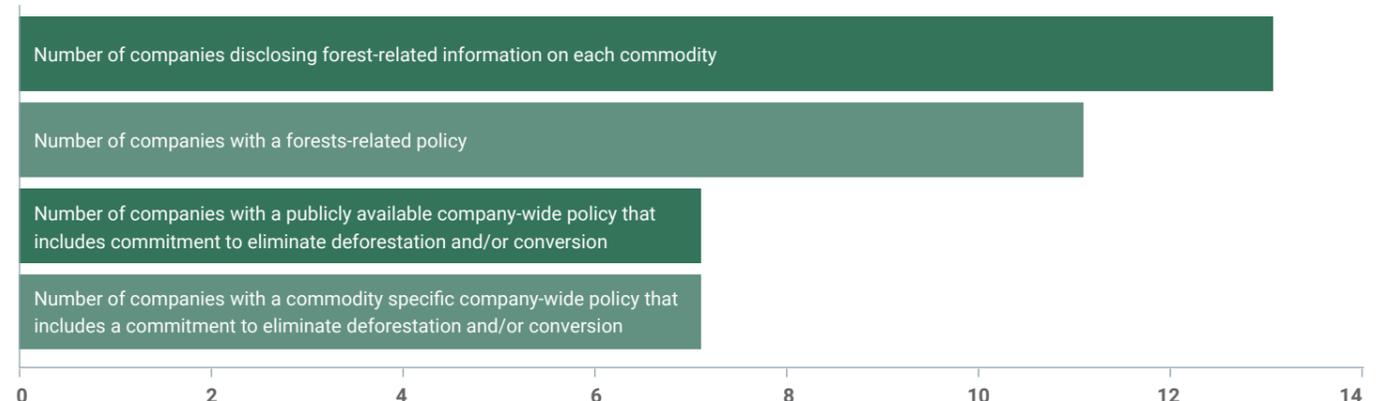


FIGURE 7 CA100+ forest sample companies and deforestation policies

FORESTS

Protecting and restoring forests is not only part of the solution to climate change but key to preserving biodiversity and achieving a sustainable economy. To ensure resilience in the face of the systemic risks posed by deforestation, companies should integrate forests into all aspects of their long-term strategic business plans.

While 11 out of 13 CA100+ forest sample²³ respondents integrate forests into long-term business objectives and strategy, only eight include forest-related issues in financial planning. This signals a gap, as companies are not considering how they are going to allocate capital to address deforestation. This could be a costly mistake as potential impacts from deforestation-related risks were valued at over US\$49 billion by just 100 companies reporting through CDP in 2019.

Policies on deforestation are an integral part of a company's governance to ensure business practice does not directly or indirectly drive deforestation. 11 CA100+ forest sample²³ companies have a forest-related policy in place, however only seven have a general or commodity-specific policy that:

- Is publicly available;
- Includes a commitment to eliminate deforestation and/or conversion of natural habitats; and
- Covers all company operations and supply chains.

Existing policies that do not cover these three critical elements leave companies exposed to deforestation within their business practices.

Consistent with other metrics assessed, performance on cattle products was found to be particularly poor. Only one CA100+ forest sample²³ company using cattle products has a company-wide public policy that includes a commitment to eliminate deforestation and/or conversion of natural habitats.

Deforestation in corporate value chains is a complex problem that requires collaboration among different stakeholders. To successfully address deforestation, companies must engage with suppliers and support them in implementing actions that remove deforestation.

Among the CA100+ forest sample²³ respondents, engagement on deforestation with direct suppliers and smallholders is high (~83%). Only four companies, however, provide direct suppliers or smallholders with financial and technical assistance. Financial and technical assistance are critical, as without them, agricultural producers are often left without the capacity, resources or capability to transform their business.

METRICS & TARGETS

Whether it be actions taken to reduce emissions, reduce water consumption, withdrawal or pollution, or actions taken to mitigate deforestation such as traceability or certification, measuring and reporting progress is key to ensuring companies are reducing negative environmental impacts and contributing to a sustainable economy.

CLIMATE CHANGE

Before a company can start to take action to reduce its emissions footprint, it needs to collect and disclose its greenhouse gas emissions. This initial disclosure process is vital to understand exactly where and how they operate today and use this as a baseline to set more informed targets.

GHG emissions²⁴

Almost all CA100+ respondents disclose direct operations (scope 1) emissions, totalling close to 3.6 billion mtCO₂e. Using CDP's GHG Emissions Clean and Complete Data Set, a further 38 companies have had their direct operations emissions modelled at over 1.5 billion mtCO₂e.

In terms of indirect (Scope 2) emissions, and specifically approaching it from a location-based Scope 2 perspective, 116 CA100+ respondents provide emissions figures equating to close to 357 million mtCO₂e, with a further 42 companies (with location-based Scope 2 emissions modelled), totalling over 194 million mtCO₂e.

107 companies provide Scope 3 emissions data, totalling just short of 13.9 billion mtCO₂e. This is clearly where the majority of their emissions lie, with at least 2/3 of these emissions being concentrated in the 'use of sold products' category. Plugging any data gaps via modelled emissions data (including those companies who are not currently reporting to CDP), brings the 2019 Scope 3 emissions for the whole group of CA100+ companies up to over 23 billion mtCO₂e. Investors should therefore encourage more disclosure through CDP to allow them to track indicators such as these in a systematic and consistent manner. In addition, the focus clearly needs to be on transitioning out of business models which rely on carbon-intensive products or services in order to decrease impact.

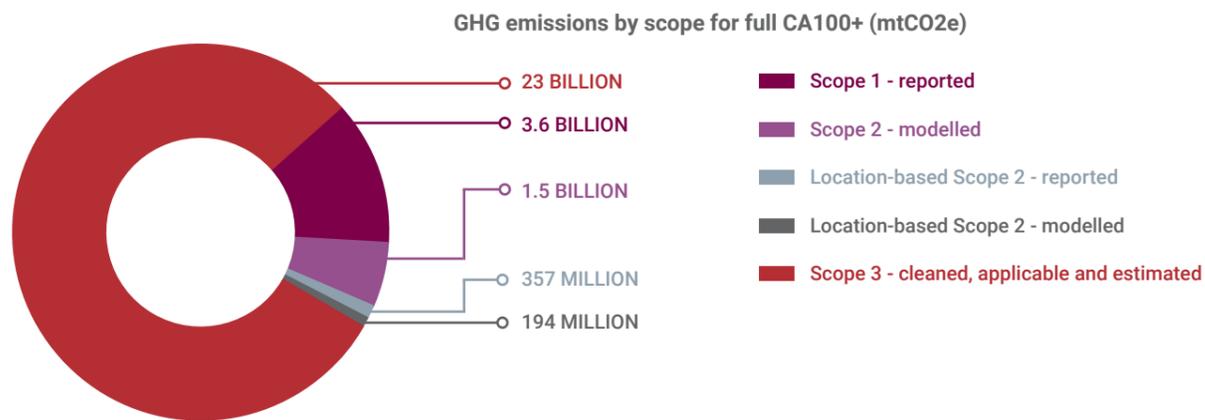


FIGURE 8 GHG emissions by scope including modelled emissions for non-responders

Targets

Of the 122 CA100+ respondents, 117 (95.9%) identify having active emissions reduction targets, more details of which can be found in the chart below. Four of the five companies that have not yet set a target reported that they plan to do so in two years.

119 companies report active emissions reductions initiatives²⁵ with potential annual savings of over 570 million mtCO₂e. This figure is dwarfed by the total emissions these companies are reporting.

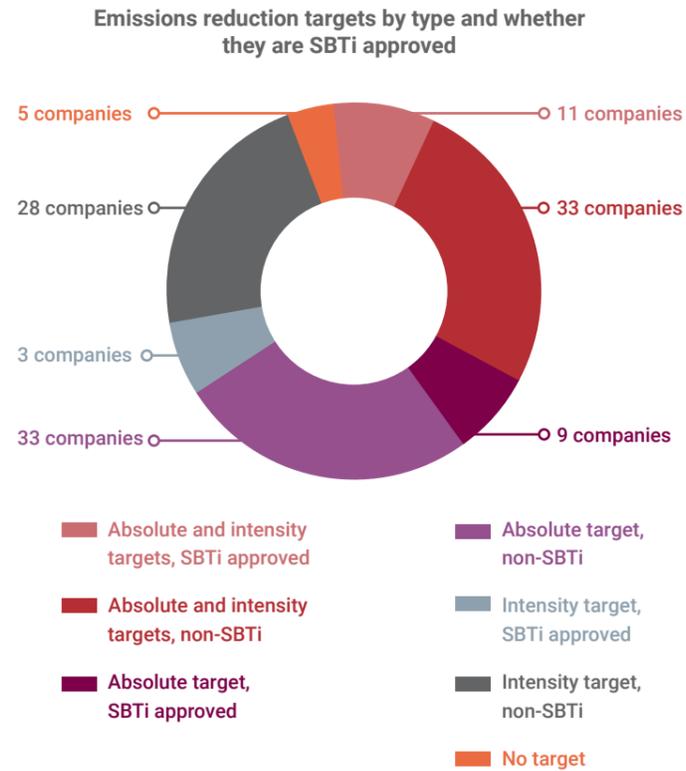


FIGURE 9 Companies report emissions target active in reporting year

Emissions reductions in comparison to previous year

The power generation industry performed particularly well in terms of reducing Scope 1 and Scope 2 emissions in comparison to the previous reporting year, disclosing a reduction of over 107 million mtCO₂e. Two of the overall standout companies – ENEL SpA and Engie (both CDP climate A Listers) – disclosed significant reductions linked to the shift away from coal and the increase in renewables. The largest proportion of emissions reductions disclosed by fossil fuel companies are linked to energy efficiency projects and divestments from heavy carbon intensive assets. Mineral extraction firms also saw the largest emissions reductions through divestments, specifically shifting away from coal.

Infrastructure firms overall saw an increase in Scope 1 and Scope 2 emissions in comparison to the previous year. The largest notable examples are linked to increased demand in production and consumption of electricity and for heat. Uncharacteristically bad weather in the U.S. was also noted as a factor for increases in output, alongside thermal loss.

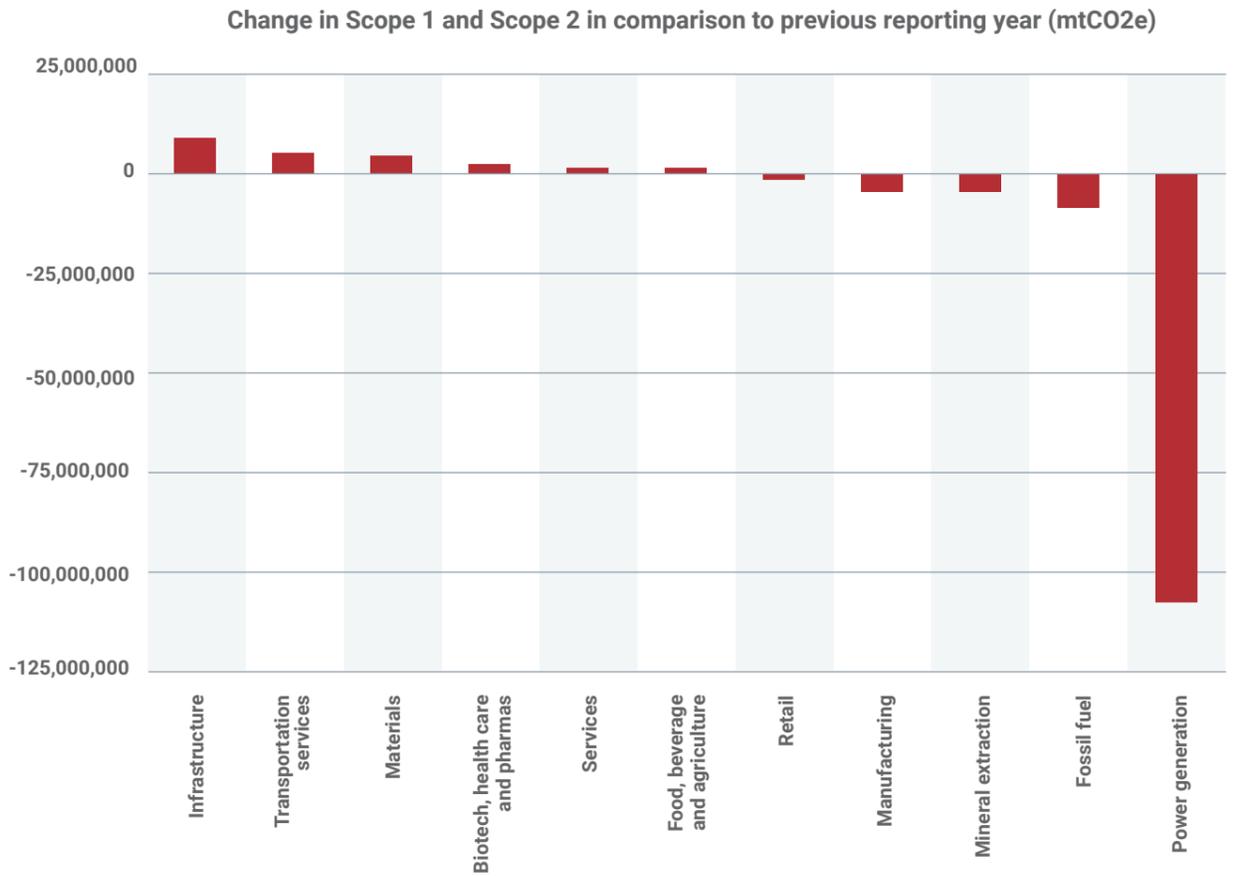


FIGURE 10 Scope 1 and Scope 2 emissions in comparison to previous reporting year by industry

²⁴ 154 of the companies' emissions data is covered in CDP's Clean and Complete GHG emissions data set (CCDS). 116 of these companies have had their disclosed emissions data reviewed by our Data Analytics Team to identify any potential errors. 38 non-responding companies have had their emissions data modelled as part of the CCDS output for their investors. A further four companies disclosed emissions data through CDP investors but were not reviewed as part of the CCDS. their raw emissions data was used.

²⁵ Active emissions reduction initiatives includes initiatives with a status of: implementation commenced, implemented, or to be implemented

WATER SECURITY

Absolute indicators

WATER CONSUMPTION – the amount of water drawn into the boundaries of the organization (or facility) and not discharged back to the environment or a third party over the course of the reporting period. It is the water that the company has permanently removed from the local water cycle by being incorporated into products, crops, etc. It means that this water is no longer available for use by the ecosystem, local community or other businesses.

- Three CA100+ water sample²⁶ respondents (4%) do not disclose water consumption data or were in their first year of measurement.
- Of those that do, for both global aggregate and local at-risk facilities:
 - 25 (32%) increased water consumption compared to the previous reporting year;
 - 28 (35%) lowered their consumption; and
 - 23 (29%) stabilized their water consumption.

WATER WITHDRAWALS – water that the company has temporarily removed from the local water cycle that is returned as discharge water. It is the sum of all water drawn into the boundaries of the organization or facility from all sources for any use.

- One (1%) CA100+ water sample²⁶ respondent did not disclose data associated with volumes of water withdrawn in stressed areas.
- Of those that do, for both global aggregate and local at-risk facilities:
 - 21 (27%) increased water withdrawals compared to the previous reporting year;
 - 38 (48%) lowered water withdrawals; and
 - 19 (24%) stabilized water withdrawals.

WATER DISCHARGES – water that leaves a company's facility and can be a potential source of pollution if left untreated. It is the amount of effluents and other water leaving the boundaries of the organization or facility and released to surface water, groundwater or third parties.

- Three CA100+ water sample²⁶ respondents (4%) do not monitor the quantity of wastewater discharges across the majority of their sites.
- Of those that do, for both global aggregate and local at-risk facilities:
 - 22 (28%) increased water discharges compared to the previous reporting year;
 - 32 (41%) lowered water discharges; and
 - 22 (28%) stabilized water discharges.

Targets

It is reasonable to expect all CA100+ water sample²⁶ companies to have water pollution and water consumption or withdrawal reduction targets. Despite this, 12 (15%) CA100+ water sample²⁶ respondents have yet to set any water-related target including ArcelorMittal, Canadian Natural Resources Ltd and Devon Energy Corporation. Of those, 67 CA100+ water sample²⁶ companies (85%) have set targets, 33 (42%) have targets focused on freshwater use (i.e. withdrawals or consumption) and just 16 (20%) have targets tied to the elimination of pollution. Available evidence shows that targets are important elements in the successful execution of corporate strategies. They can lead to both cost and impact reductions, promote innovation and reduce dependency.

Organizations with water-related targets

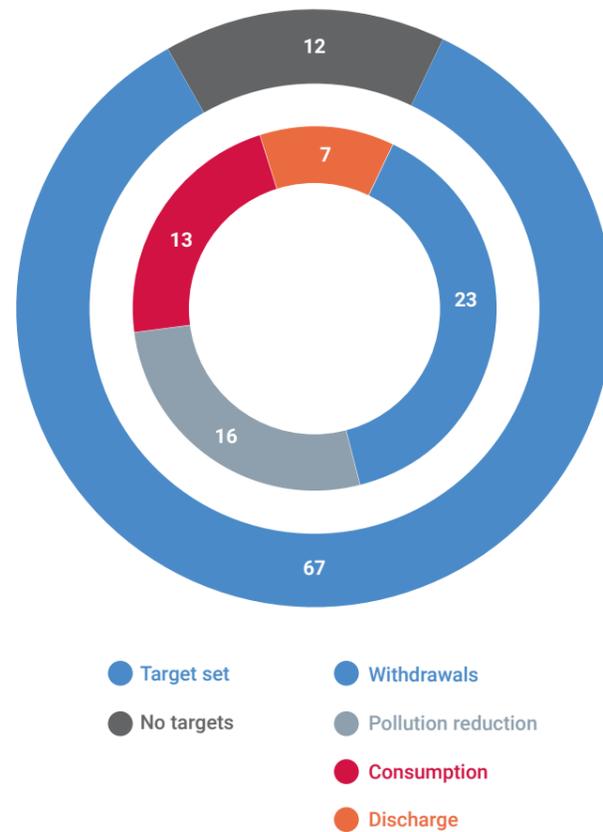


FIGURE 11 Spread of CA100+ water-related targets

FORESTS

In addition to supply chain engagement (discussed previously), traceability and certification are other tools used by companies to implement strategies and policies around deforestation.

Traceability

Commodities that drive deforestation are an integral part of everyday products and corporate value chains. Deforestation exposes company value chains to risk, and identifying where commodities originate is vital for assessing risks. Ten CA100+ forest sample²⁷ companies source commodities from regions with a high deforestation risk. Two companies report that they do not source from such regions, while two companies report that they do not know the source of one or more of their commodities. Without comprehensive traceability, companies are not well-placed to manage the potential risks they face.

Ten CA100+ forest sample²⁷ companies have a traceability system in place to track and monitor the origin of the commodities they use, but just five companies can trace at least 91% of their production/consumption beyond the country of origin back to at least the region or province.²⁸ Such detailed traceability is most prevalent among companies sourcing or using palm oil (three out of seven). In comparison, no company using cattle products reports such high levels of traceability.

Knowing exactly where commodities originate from is also important for accurate GHG emissions accounting. If production involves deforestation, then the emissions footprint of commodities or products is considerably higher.^{29,30} Companies that do not have comprehensive traceability of commodities do not have visibility over the production of their commodities and whether it involves deforestation. They could therefore have inaccurate GHG accounting and underreported emissions.

Origin of CA100+ companies' commodities and net forest conversion emissions

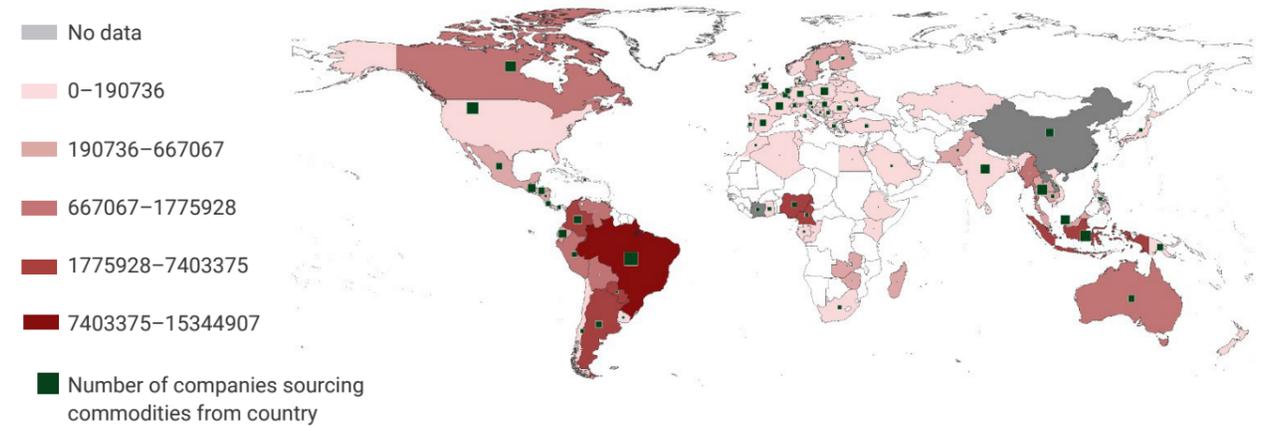


FIGURE 12 Net forest conversion emissions between 2000-2017 in countries from which CA100+ companies source commodities linked to deforestation. The size of the square increases with the number of CA+100 companies sourcing from that country. Source: FAOSTAT/CDP.

Certification

Third-party certification is a means of verifying that commodities have been produced in a sustainable manner. This includes ensuring that production does not cause further deforestation, but also includes, for example, excessive pesticide use or conditions that impede on human rights.

While nearly all CA100+ forest sample²⁷ companies (12) report using or producing commodities certified by third parties, only five companies have at least 90% of their commodities certified using a scheme that demonstrates compliance with no-deforestation requirements. Of these five companies, only one company reports having such a certification in place for soy, while four companies do for timber products. Not a single CA100+ company producing or using palm oil or cattle products report using such comprehensive certification.

²⁶ The water sample within the CA100+ group

²⁷ The forests sample within the CA100+ group

²⁸ At least region for manufacturers or retailers & province for producers, processors or traders

²⁹ Maciel et al. (2016) Greenhouse gases assessment of soybean cultivation steps in southern Brazil. <https://doi.org/10.1016/j.jclepro.2016.04.100>

³⁰ Escobar et al. (2020) Spatially-explicit footprints of agricultural commodities: Mapping carbon emissions embodied in Brazil's soy exports. <https://doi.org/10.1016/j.gloenvcha.2020.102067>

Targets

CA100+ forest sample³¹ companies are showing some ambition to improve their management of deforestation – nine companies (70%) report quantified targets for increasing sustainable production and/or consumption of commodities or tracing the commodities to their origin. However, targets need to be more ambitious to close performance gaps.

Traceability

Three companies have targets to trace at least 71% of their soy or cattle products or 80% of palm oil or timber³² products back to the region or province of origin and are making linear year-on-year progress toward these targets.

Certification

Only five CA100+ forest sample³¹ companies are making linear year-on-year progress toward targets to have at least 71% of their soy or cattle products or 80% of palm oil or timber products certified in accordance a robust no-deforestation standard.

Overall, the poorest performance is seen among CA100+ forest sample³¹ companies that use cattle products. Only one CA100+ forest sample³¹ company has a company-wide public policy that includes a commitment to eliminate deforestation and/or ecosystem conversion. The same company, Colgate Palmolive Company, is the only CA100+ forest sample³¹ company to have a comprehensive risk assessment for cattle products. No CA100+ forest sample³¹ company using cattle products has either comprehensive certification, traceability or targets in place, nor are any providing their direct suppliers with financial and technical assistance to end deforestation.

Performance of CA100+ forest sample companies on forest-related metrics and targets

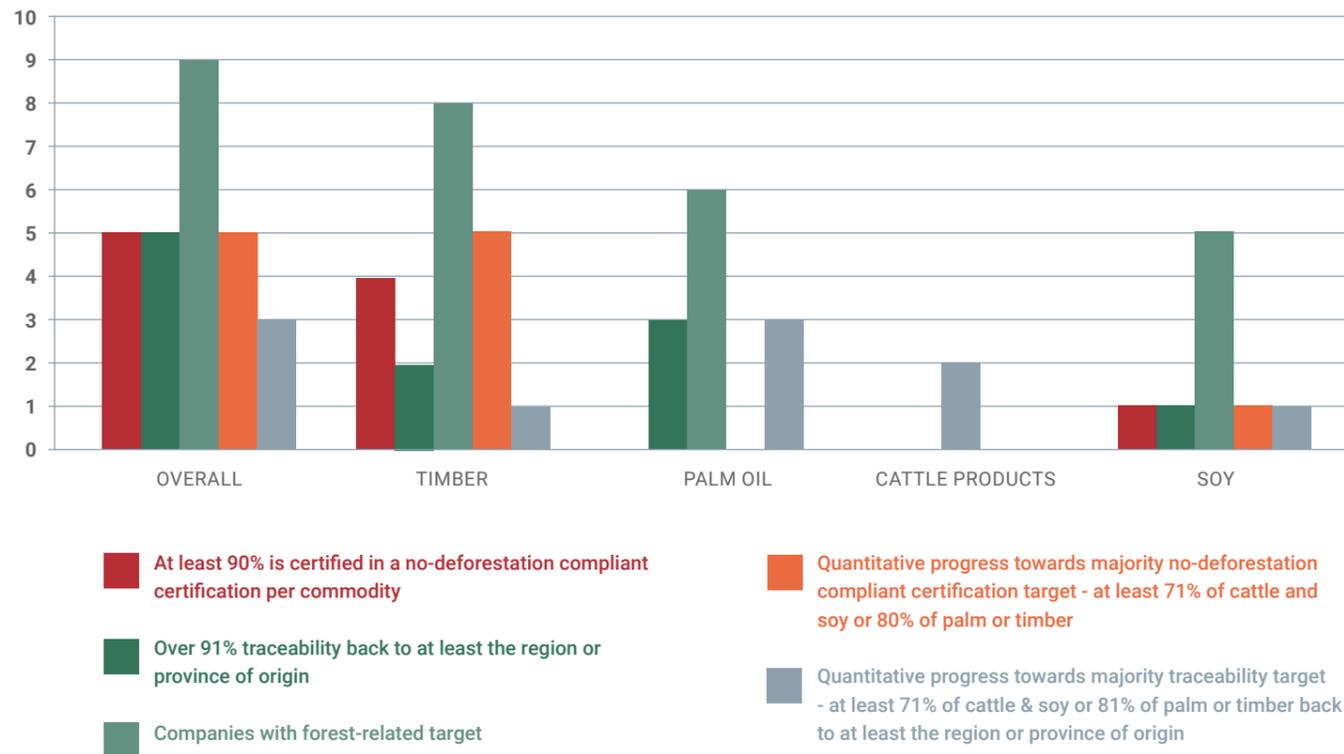


FIGURE 13 CA100+ companies: certification, traceability, and targets

³¹ The forests sample within the CA100+ group

³² A lower percentage was used for cattle products and soy in comparison to palm oil or timber in recognition that performance on these commodities lags behind.

THE CATTLE CONNECTION

The production of commodities such as timber soy, palm oil and cattle products causes deforestation and thus drives climate change globally and adversely affects water security. These 'forest-risk commodities' are an integral part of everyday products and corporate supply chains and, therefore, corporate profit. CDP research³³ found that companies that produce or use one or more of the main forest risk commodities typically report 15% of corporate revenue to be dependent on each of the commodities.

Cattle products are responsible for the largest loss of tropical and sub-tropical forests. Inaction by companies on deforestation – especially this commodity – jeopardizes goals of keeping warming to 1.5 degrees C, reduces water security and drives down biodiversity.

Cattle products include beef, leather, tallow and gelatine. Beef and gelatine are used in a wide range of fresh or processed food products, while leather is used in furniture, automobiles, clothing, footwear and accessories. Tallow is used in the production of biofuels, personal care and household products.

From automobile companies that sell cars with leather seats and trims, to retailers that sell beef, CA100+ companies that use cattle products need to:

- ① ESTABLISH ROBUST GOVERNANCE MECHANISMS SUCH AS BOARD-LEVEL OVERSIGHT OF FOREST-RELATED ISSUES AND NO-DEFORESTATION POLICIES
- ② CONDUCT COMPREHENSIVE RISK ASSESSMENTS
- ③ ENGAGE WITH THEIR SUPPLIERS
- ④ TAKE STEPS TO MANAGE DEFORESTATION THROUGH TRACEABILITY AND CERTIFICATION
- ⑤ DISCLOSE QUANTITATIVE PROGRESS ON THEIR MANAGEMENT OF DEFORESTATION COMMODITIES

³³ [The Money Trees, CDP 2019](#)



CONCLUSION

The interlinked nature of climate change, water security and deforestation requires companies to consider and manage environmental impacts holistically. Emphasis and prioritization of one at the detriment of the others will result in perverse outcomes. For example, when biofuel uptake is driven purely on a consideration for its calculated emissions reduction potential without taking into consideration its adverse impacts on water security or land use, the business is exposed to risk and the environment is further degraded. Without a holistic perspective, opportunities and solutions will also remain out of view.

Evidence suggests that CA100+ companies are currently not considering their businesses and impacts in such a holistic manner. Disclosure by CA100+ companies is highest on climate change, middlemost on water security and least developed on deforestation. Disclosing CA100+ companies seem to be singularly focused on the physical risks of water security and the reputational risks of deforestation. While for climate the focus needs to expand to include potential impacts along their value chains, especially for physical risks – more publicly available physical scenarios need to be included in their analysis. While measuring and reporting carbon emissions has become the norm and a reduction or stabilization of freshwater withdrawals and consumption is even reported among the majority of CA100+ respondents, reducing carbon emissions remains sporadic, setting pollution-related targets remains extremely nascent and robust measures and targets to manage deforestation are still atypical.

The signals of change coming from governments and consumers are strong and growing. Companies in all sectors have a legal, ethical and financial obligation to act. While there are seeds of best practice, we have some way to go before the effective elimination and management of corporate impacts on climate and the environment move to the mainstream. Investors have an important role to play in raising this as an issue of concern in shareholder resolutions, earnings calls and one-to-one engagements. CDP will continue to gather data to support these efforts while tracking the progress companies are making.

INSTRUCTIONS FOR ACCESSING FULL DATA SETS

Access to the complete corporate response datasets used in this report is available to CDP investor signatories.

To learn more about becoming an investor signatory, visit our [website](#).

COMPANY	PRIMARY INDUSTRY	2019 DISCLOSURE STATUS	2019 DISCLOSURE STATUS			COMMITTED TO SET A SCIENCE-BASED TARGET			2019 DISCLOSURE STATUS			DISCLOSED ON A COMMODITY/ WHICH COMMODITY	HAVE PUBLICLY AVAILABLE COMPANY-WIDE POLICY THAT ELIMINATE DEFORESTATION AND/OR CONVERSION	TIMBER PRODUCTS	Making progress towards comprehensive certification or traceability target				
			DISCLOSED CHG EMISSIONS ACROSS ALL 3 SCOPES	HAVE EMISSION REDUCTION TARGET	ABSOLUTE INDICATORS: Water consumption status compared to previous year	TARGETS: Has pollution reduction target governance	GOVERNANCE: C-suite incentives	2019 DISCLOSURE STATUS	ABSOLUTE INDICATORS: Water consumption status compared to previous year	TARGETS: Has pollution reduction target governance	GOVERNANCE: C-suite incentives				2019 DISCLOSURE STATUS	CATTLE PRODUCTS	PALM OIL	SOY	
Colgate Palmolive Company	Manufacturing	Submitted	Yes	Absolute target	Yes			Submitted	About the same			Submitted	Timber products, Palm Oil, Cattle Products, Soy	Yes	Traceability & Certification	No	Traceability	Certification	
ConocoPhillips	Fossil Fuels	Submitted	Yes	Intensity target				Not submitted				Not requested in 2019							
CRH Plc	Materials	Submitted	Yes	Intensity target	Yes			Not submitted				Not requested in 2019							
Cummins Inc.	Manufacturing	Submitted	Yes	Both absolute and intensity targets	Yes			Submitted	About the same			Not requested in 2019							
Daikin Industries, Ltd.	Manufacturing	Submitted	Yes					Submitted	About the same			Not requested in 2019							
Daimler AG	Manufacturing	Submitted	Private response						Not submitted				Not submitted						
Dangote Cement PLC	Materials	Submitted	Yes	No target				Not requested in 2019				Not requested in 2019							
Danone	Food, beverage & agriculture	Submitted	Yes	Both absolute and intensity targets	Yes	Yes	Yes	Submitted	Higher	Yes	Yes	Submitted	Timber products, Palm Oil, Soy	Yes	Certification		No	No	
Delta Air Lines	Transportation services	Submitted	Yes	Both absolute and intensity targets				Not requested in 2019				Not requested in 2019							
Devon Energy Corporation	Fossil Fuels	Submitted		Both absolute and intensity targets				Submitted	Higher		Yes	Not requested in 2019							
Dominion Energy	Power generation	Submitted	Yes	Intensity target				Submitted	Much lower		Yes	Not submitted							
Duke Energy Corporation	Power generation	Submitted	Yes	Both absolute and intensity targets				Submitted	Higher	Yes	Yes	Not requested in 2019							
E.ON SE	Power generation	Submitted	Yes	Both absolute and intensity targets				Not requested in 2019				Not submitted							
Ecopetrol Sa	Fossil Fuels	Not submitted						Not requested in 2019				Not requested in 2019							
EDF	Power generation	Submitted	Yes	Both absolute and intensity targets	Yes	Yes		Submitted	About the same		No	Not submitted							
Enbridge Inc.	Fossil Fuels	Not submitted						Not submitted				Not requested in 2019							
ENEL SpA	Power generation	Submitted	Yes	Both absolute and intensity targets	Yes	Yes		Submitted	Much higher		No	Not requested in 2019							
ENGIE	Power generation	Submitted	Yes	Both absolute and intensity targets	Yes			Submitted	Much lower		No	Not submitted							
Eni SpA	Fossil Fuels	Submitted	Yes	Both absolute and intensity targets				Submitted	About the same		Yes	Not submitted							
Equinor	Fossil Fuels	Submitted	Yes	Both absolute and intensity targets				Not submitted				Not submitted							
Eskom	Power generation	Submitted		Absolute target				Not requested in 2019				Not requested in 2019							
Exelon Corporation	Power generation	Submitted	Yes	Absolute target				Submitted	Higher	Yes	Yes	Not requested in 2019							
Exxon Mobil Corporation	Fossil Fuels	Not submitted						Not submitted				Not requested in 2019							
Fiat Chrysler Automobiles NV	Manufacturing	Submitted	Yes	Intensity target				Submitted	Much lower			Not submitted							
FirstEnergy Corporation	Power generation	Submitted	Yes	Absolute target				Submitted	Lower	Yes	Yes	Not requested in 2019							
Ford Motor Company	Manufacturing	Submitted	Yes	Both absolute and intensity targets				Submitted	Lower			Not submitted							
Formosa Petrochemical	Fossil Fuels	Submitted	Private response						Submitted	Private response			Not requested in 2019						
Fortum Oyj	Power generation	Submitted	Yes	Intensity target				Not submitted				Not requested in 2019							
General Electric Company	Manufacturing	Submitted	Yes	Absolute target				Not submitted				Not submitted							
General Motors Company	Manufacturing	Submitted	Yes	Both absolute and intensity targets				Submitted	Lower			Submitted	Timber products, Other - Rubber	No	No				
Glencore plc	Fossil Fuels	Not submitted						Submitted	Higher	Yes	No	Not submitted							
Groupe PSA	Manufacturing	Submitted	Yes	Both absolute and intensity targets	Yes			Not submitted				Not submitted							
HeidelbergCement AG	Materials	Submitted	Yes	Intensity target	Yes			Submitted	Lower			Not requested in 2019							
Hitachi, Ltd.	Manufacturing	Submitted	Yes	Both absolute and intensity targets	Yes			Submitted	Lower			Not requested in 2019							

COMPANY	PRIMARY INDUSTRY	2019 DISCLOSURE STATUS	DISCLOSED GHG EMISSIONS ACROSS ALL 3 SCOPES				2019 DISCLOSURE STATUS	ABSOLUTE INDICATORS: Water consumption status compared to previous year			2019 DISCLOSURE STATUS	GOVERNANCE: C-suite incentives			DISCLOSED ON A COMMODITY/ WHICH COMMODITY	HAVE PUBLICLY AVAILABLE COMPANY-WIDE POLICY THAT ELIMINATE DEFORESTATION AND/OR CONVERSION			Making progress towards comprehensive certification or traceability target		
			2019 DISCLOSURE STATUS	COMMITTED TO SET A SCIENCE-BASED TARGET	SIGNED UP TO 1.5C° PLEDGE	RE100 MEMBER		ABSOLUTE INDICATORS: Water consumption status compared to previous year	TARGETS: Has pollution reduction target governance	2019 DISCLOSURE STATUS		DISCLOSED ON A COMMODITY/ WHICH COMMODITY	TIMBER PRODUCTS	CATTLE PRODUCTS		PALM OIL	SOY				
PJSC Gazprom	Infrastructure	Submitted		Both absolute and intensity targets			Submitted	Higher	Yes	No	Not requested in 2019										
Polska Grupa Energetyczna (PGE) SA	Power generation	Not submitted					Not submitted				Not requested in 2019										
POSCO	Materials	Submitted	Yes	Intensity target			Submitted	About the same			Not requested in 2019										
Power Assets Holdings Limited	Power generation	Not submitted					Not requested in 2019				Not requested in 2019										
PPL Corporation	Power generation	Submitted	Yes	Absolute target			Not submitted				Not requested in 2019										
Procter & Gamble Company	Manufacturing	Submitted	Yes	Absolute target	Yes		Yes	Submitted	Higher		Not submitted										
PTT	Fossil Fuels	Submitted	Yes	Absolute target			Submitted	Higher			Not requested in 2019										
Qantas Airways	Transportation services	Not submitted					Not requested in 2019				Not requested in 2019										
Reliance Industries	Fossil Fuels	Not submitted					Not submitted				Not submitted										
Renault	Manufacturing	Submitted	Yes	Intensity target	Yes		Submitted	<small>This is our first year of measurement</small>	Yes		Not submitted										
Repsol	Fossil Fuels	Submitted	Yes	Both absolute and intensity targets			Not submitted				Not submitted										
Rio Tinto	Mineral extraction	Submitted	Yes	Intensity target			Not submitted				Not submitted										
Rolls-Royce	Manufacturing	Not submitted			Yes	Yes	Not submitted				Not requested in 2019										
Rosneft Oil Company	Fossil Fuels	Submitted	Private response				Submitted	Private response			Not requested in 2019										
Royal Dutch Shell	Fossil Fuels	Submitted	Yes	Both absolute and intensity targets			Not submitted				Not submitted										
RWE AG	Power generation	Submitted	Yes	Absolute target			Submitted	About the same		No	Submitted	No									
Saic Motor Corporation	Manufacturing	Not submitted					Not requested in 2019				Not submitted										
Saint-Gobain	Materials	Submitted	Yes	Both absolute and intensity targets	Yes	Yes	Submitted	Lower			Submitted	Private response									
Santos	Fossil Fuels	Not submitted					Not submitted				Not requested in 2019										
Sasol Limited	Fossil Fuels	Submitted	Yes	Absolute target			Submitted	About the same		No	Not requested in 2019										
Severstal PAO	Materials	Submitted		No target			Submitted	Higher			Not requested in 2019										
Siemens AG	Manufacturing	Submitted	Yes	Absolute target			Submitted	About the same			Not requested in 2019										
SK Innovation Co Ltd	Fossil Fuels	Not submitted					Not submitted				Not submitted										
South32	Materials	Not submitted					Not submitted				Not submitted										
Southern Copper Corporation	Mineral extraction	Not submitted					Not submitted				Not submitted										
SSAB	Materials	Submitted	Yes	Absolute target			Not submitted				Not requested in 2019										
SSE	Power generation	Submitted	Yes	Both absolute and intensity targets	Yes		Submitted	Lower	Yes	Yes	Submitted	Timber products	No		No						
Suncor Energy Inc.	Fossil Fuels	Submitted	Yes	Intensity target			Submitted	Much higher		Yes	Not requested in 2019										
Suzano Papel e Celulose		Not requested in 2019					Not requested in 2019				Not requested in 2019										
Suzuki Motor Corporation	Manufacturing	Submitted	Yes	Intensity target			Submitted	Private response			Submitted	Private response									
Teck Resources Limited	Fossil Fuels	Submitted	Yes	Absolute target			Submitted	Higher		Yes	Not submitted										
The AES Corporation	Power generation	Submitted	Yes	Both absolute and intensity targets			Submitted	Private response			Not requested in 2019										
The Coca-Cola Company	Food, beverage & agriculture	Submitted	Yes	Both absolute and intensity targets	Yes		Submitted	Higher	Yes	Yes	Submitted	Private response									
The Dow Chemical Company	Manufacturing	Submitted	Yes	Absolute target			Submitted	About the same		No	Submitted	Private response									

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