

CDP SUPPLY CHAIN: CHANGING THE CHAIN

Making environmental action in procurement the new normal

Written on behalf of 125 organizations representing US\$3.6 trillion of procurement spend



TABLE OF CONTENTS

- 04 Foreword: Microsoft
- 05 Executive summary
- 07 About this report
- 08 Buyers taking action
- 10 Acting on climate change
- 12 Protecting forests
- 14 Water stewardship in the supply chain
- 15 Regional overview
- 16 Acknowledgements

Important Notice

The contents of this report may be used by anyone providing acknowledgment is given to CDP. This does not represent a license to repackage or resell any of the data reported to CDP or the contributing authors and presented in this report. If you intend to repackage or resell any of the contents of this report, you need to obtain express permission from CDP before doing so.

CDP has prepared the data and analysis in this report based on responses to the CDP 2019 information request. No representation or warranty (express or implied) is given by CDP as to the accuracy or completeness of the information and opinions contained in this report. You should not act upon the information contained in this publication without obtaining specific professional advice. To the extent permitted by law, CDP does not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this report or for any decision based on it. All information and views expressed herein by CDP are based on their judgment at the time of this report and are subject to change without notice due to economic, political, industry and firm-specific factors. Guest commentaries where included in this report reflect the views of their respective authors; their inclusion is not an endorsement of them.

CDP, its affiliated member firms or companies, or its respective shareholders, members, partners, principals, directors, officers and/or employees, may have a position in the securities of the companies discussed herein. The securities of the companies mentioned in this document may not be eligible for sale in some states or countries, nor suitable for all types of investors; their value and the income they produce may fluctuate and/or be adversely affected by exchange rates.

'CDP' refers to CDP North America, Inc, a not-for-profit organization with 501(c)3 charitable status in the US and CDP Worldwide, a registered charity number 1122330 and a company limited by guarantee, registered in England number 05013650.

© 2019 CDP. All rights reserved.

CDP SUPPLY CHAIN MEMBER ORGANIZATIONS

Premium members

- Microsoft Corporation
- Stanley Black & Decker, Inc.
- Walmart Inc.

Lead members

- Alphabet, Inc
- Bank of America
- Barclays
- Braskem S/A
- Dell Technologies
- Grupo Bimbo
- Imperial Brands
- ◄ JT International SA
- Juniper Networks, Inc.
- Kellogg Company
- Koninklijke Philips NV
- L'Oréal
 - ▼ NRG Energy Inc
- Philip Morris International
 - ▼ SABIC
 - Signify NV
 - Target Corporation
 - ▼ The LEGO Group
 - Virgin Money Holdings
 - Wells Fargo & Company

Climate change member

Forests member

Water member

Standard members

- Accenture
- Acer Inc.
- Águas Andinas SA
- Ajinomoto Co.Inc.
 - Amdocs Ltd
- Anheuser Busch InBev
- Arcos Dorados
 - ARKEMA
 - AT&T Inc.
 - Avianca Holdings S.A.
 - Banco Bradesco S/A
 - Banco do Brasil S/A
 - Banco Santander
 - 🗨 BMW AG
 - Bridgestone Corporation
 - Bristol-Myers Squibb
 - British American Tobacco
 - ▼ BT Group
 - Caesars Entertainment
 - Caixa Econômica Federal
 - California Department of General Services (DGS)
 - CANPACK Group
 - ▼ Cellnex Telecom SA
 - Chunghwa Telecom
 - Cisco Systems, Inc.
 - CNH Industrial NV
 - Colgate Palmolive Company
 - Croda International
 - CVS Health
 - Daimler AG
 - ▼ Deutsche Telekom AG
 - Diageo Plc
 - Eaton Corporation
 - Ecorodovias Infraestrutura e Logística S.A
- Endesa
 - ▼ Fiat Chrysler Automobiles NV
- **FIRMENICH SA**
 - Ford Motor Company
 - **T** Fujitsu Limited
 - General Motors Company
 - 🗨 Givaudan SA
 - Grupo CCR
 - Heineken NV
 - Hewlett Packard Enterprise Company
 - 🗨 Honda Motor Co., Ltd.
 - Honda Europe
 - Honda North America, Inc.
 - HP Inc
 - HTC Corporation
 - Husqvarna AB

- Intel Corporation
 - International Flavours and Fragrances Inc.
- Itaú Unibanco Holding S.A.
- ▼▼ Jaguar Land Rover Ltd
- Johnson & Johnson
- **KAO** Corporation
 - Klabin S/A
 - ▼ KPMG UK
 - Los Angeles Department of Water and Power
 - Mastercard Incorporated
 - McDonald's Corporation
 - MetLife, Inc.
 - Metro AG
 - Ministry of the Environment, Government of Japan
 - Mitsubishi Motors Corporation
- **NRV Engenharia e Participações**

Restaurant Brands International

Royal Bank of Canada

S.C. Johnson & Son, Inc.

Samsung Electronics

Sekisui Chemical Co., Ltd

- National Grid PLC
- Naturgy Energy Group SA
- ▼ NEC Corporation
- Nissan Motor Co., Ltd.
- Nokia Group
- PepsiCo, Inc.

S Group

Sky plc

SSE

Snam S.p.A

Swisscom

TD Bank Group

Ultragaz S/A

VMware, Inc

Volkswagen AG

Vodafone Group

🔻 Walmart – Brasil

WalMart de Mexico

3

Unilever plc

Visa, Inc.

The Coca-Cola Company

Toyota Motor Corporation

Administration (GSA)

U.S. General Services

Symrise AG

Tesco

Prysmian SpA

Pirelli

FOREWORD FROM LUCAS JOPPA CHIEF ENVIRONMENTAL OFFICER FOR MICROSOFT CORPORATION



We have aligned our supplier spend with the trillions of investor dollars who also leverage CDP data. This alignment of market signals drives our suppliers to focus on disclosing their GHG emissions and setting emission reduction targets in line with climate science. The world's leading environmental scientists have spoken, and the message is clear: the best time to act on climate change was yesterday, so we better start today. The task is much bigger, and time is way shorter than previously thought. We must take immediate action to ensure a sustainable supply of clean food, water, and air to a human population rapidly growing to 10 billion, all while stemming a globally catastrophic loss of biodiversity and averting the worst economic impacts of a changing climate.

Given the enormity of this task, it will be critical that every individual and organization step up their ambition. There is a clear case for the private sector to play, and equally clear expectation for business to rise to the challenge. Investors are now looking at environmental data when choosing investments, employees are making career decisions based on the sustainability record of employers and consumers are examining environmental labels when shopping.

While there's much more to be done, the good news is that companies have been acting to reduce emissions within their operations and improving the energy efficiency of their products for years. These investments were not only the right thing to do, but also good for business – from renewable energy that provides price certainty to energy-smart building solutions that cut energy bills and carbon emissions to delivering beautiful, powerful and efficient devices customers want to use.

No single company, or even the private sector, acting alone can solve this challenge. But as a global technology company, we at Microsoft believe we are well-positioned to enable and accelerate the transition, both through sharing our operational best practices to encourage others to act and by developing and deploying cutting-edge technology to empower sustainable digital transformations.

In the past year, we've accelerated on our path to powering our global operations with 100 percent renewable energy; taken steps to improve water efficiency across our operations; set a sciencebased target in-line with a 1.5 degree scenario; or nearly doubling our internal carbon price to \$15 per metric ton. We work with our customers to facilitate their own initiatives as well, from implementing their own carbon tax to making it easier to buy renewable energy as a smaller buyer. We've established a \$50M, five-year program called AI for Earth to find, fund and facilitate new data science and AI approaches to sustainability challenges that has now supported nearly 500 grants in more than 70 countries.

As we continue to accelerate our efforts to enable a low-carbon transition and push the boundaries of corporate sustainability even further, we are also looking at our sphere of influence in our supply chain. To ensure our influence has the largest impact, we sponsored the Committee on Supplier Ratings (COSR) to convene a multi-stakeholder group focused strategic sustainable procurement. Our strategy was, rather than create our own approach, to promote credible third-party ratings within our supplier engagements. The committee screened enterprise-level research providers and methodologies to determine which assessments would be most appropriate for use in evaluating supply chains. The COSR initiative was formalized and adopted by the NGO Sustainable Purchasing Leadership Council, who used the research to publish a research and qualification tool, a resource for use by procurement professionals globally. In FY19, we required our top suppliers to disclose their emissions and set their targets through the CDP supply chain program, which was highly rated by COSR.

The CDP supply chain program gathers information from companies regarding emissions; climaterelated risks and opportunities; and mitigation with customers, suppliers, and other partners. In FY18, our top suppliers reduced their collective footprint by 17 million metric tons of carbon dioxide equivalents (CO2e) and saved a total of \$986.5 million. In FY20, we almost tripled the number of suppliers in the CDP Supply Chain program, while providing capacity building also in partnership with the CDP to ensure our emissions reductions are achieved.

By working with COSR and the CDP, our approach to sustainability has reduced supplier survey fatigue and empowered procurement organizations globally of any size. But more strategically, we have aligned our supplier spend with the trillions of investor dollars who also leverage CDP data. This alignment of market signals drives our suppliers to focus on disclosing their GHG emissions and setting emission reduction targets in line with climate science.

The world needs more companies to do this, engaging their suppliers to accelerate environmental action. The stakes couldn't be higher. Failure to act would spell environmental disaster in the coming years. But if we get it right, the prize will be a sustainable future with a thriving economy, where both people and planet can prosper.

Lucas Joppa, Chief Environmental Officer, Microsoft Corporation

EXECUTIVE SUMMARY



US\$3.6 trillion



of CDP Supply Chain members have or will have integrated CDP data into their supplier relationship management processes within the next two years



of financial impact reported from environmental risks

1 gigaton

of emissions could potentially be saved if suppliers increase their renewables purchasing by 20 percentage points For most companies, the majority of their environmental impacts and exposures are to be found in their supply chains. For example, companies' supply chains produce on average more than five times the emissions from their direct operations. While reducing impacts beyond a company's direct control poses challenges, it also provides opportunities to work with suppliers to multiply positive environmental impacts.

This report explores which environmental actions buyers should consider integrating into purchasing processes when looking to reduce risk, drive environmental action and meet public commitments.

It is based on information requested by 125 large corporate buyers with a collective annual procurement spend of US\$3.6 trillion. Almost 7,000 suppliers disclosed in 2019, compared with 5,600 in 2018.

These suppliers reported emissions of 7,976 million metric tons of carbon dioxide equivalent (MtCO2e) – and US\$906 billion of potential financial risk linked to climate change. Encouragingly, they also reported a total of 563 MtCO2e in annual emission savings this year. However, there is a long way to go: only 29% reported absolute decreases in emissions. Buyers are recognising this and are driving suppliers to take more action.

One example is in purchasing renewable energy, which offers enormous potential for reducing emissions. When surveyed, more than two-thirds (70%) of responding supply chain members reported they are now actively encouraging suppliers to do so. Were suppliers to increase their proportion of the electricity they source from renewables by 20 percentage points, thereby increasing the average from 11% at present to 31%, they could reduce emissions by a billion metric tons of CO_2e .

Awareness of deforestation risk among suppliers is considerably less advanced compared with climate change. Relatively few respondents report undertaking a deforestation risk assessment. Despite 71% CDP supply chain members committing to eliminate deforestation and/or conversion, only 27% of suppliers reported setting policies with similar commitments.

In addition, the focus to date on deforestation risk in the food and packaging sectors overlooks exposures in other sectors, such as automotives and chemicals. Suppliers report US\$15.8 billion at risk linked to deforestation, mainly from reputational issues.

Reported exposures to water issues are even higher, at US\$78 billion at risk from water security. For buyers, this raises the prospects of disruption to the delivery of goods and services, increased costs and reputational damage. CDP supply chain members are encouraging suppliers to reduce these risks by undertaking water-related risk assessments, introducing public policies and setting targets and goals.

To drive more action, buyers are starting to integrate environmental data into the way they manage suppliers on a day-to-day basis. We surveyed the 125 CDP supply chain members, finding that 65% of responding members report using environmental metrics, including CDP data, in their supplier relationship management processes, with a further 30% saying they plan to do so within the next two years.

What is clear is that the environment is no longer an add-on when it comes to purchasing. Almost all (95%) members said suppliers showing environmental leadership are more competitive, with only 5% stating that in their experience such suppliers are more costly. What this means for suppliers is that those who are taking action are meeting buyer expectations, whereas those who aren't may miss out on opportunities in the future.



The potential of companies to drive emissions reductions at a global scale by engaging their supply chains is immense -- and substantially unexploited. It is essential to scale up corporate action to meet global climate change targets, to address deforestation and to ensure water security for all. Meanwhile, a growing number of leading multinational companies are integrating environmental performance into their procurement processes – rewarding suppliers that

also prioritize environmental protection. Sonya Bhonsle, Global Head of Supply Chains, CDP







ABOUT THIS REPORT

This report uses CDP data to better understand how large purchasing organizations and their suppliers are working to address impacts on and risks from climate change, deforestation, and water security.

CDP brings together 125 global corporations and public sector organizations, with US\$3.6 trillion in annual procurement spend, that request their suppliers report to them through CDP's questionnaires regarding current and anticipated environmental risks and opportunities.

Members sent 13,111 suppliers standardized questionnaires on climate change, forests and/ or water security. Simplified versions were sent to organizations with an annual turnover of less than US\$250 million or €250 million, and to larger organizations disclosing for the first time.

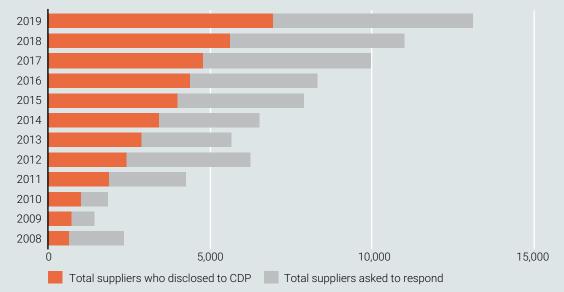
This year, 53% of suppliers (6,958) responded. This compares with 51% of 11,000 suppliers approached last year.

Most respondents (6,891) provided information on climate change. A smaller number of companies were asked to respond on forests and water issues, as these are more recent additions to CDP's questionnaires and are of less relevance for companies operating in some sectors. The forests information requests were sent to 536 companies, with 62% (334) companies responding. Regarding water issues, 3,746 companies were invited to respond, with 53% (1,975) completing a questionnaire.

We also conducted a separate survey of supply chain members, with over 35% (44) responding to questions on how they integrate environmental issues into their purchasing processes and strategies.

The analysis in this report is based on data from the companies that completed CDP questionnaires at the request of their customers (CDP supply chain members). It does not include those companies that responded through CDP's platform only to their investors. Responses have been quality assured and a small number of outlier data points have been excluded to avoid reporting misleading statistics. Where the report refers to % analysis, the % is of suppliers or members who responded to our request for information rather than the total number asked.

Growth in CDP supply chain disclosures, 2008-2019



BUYERS TAKING ACTION

CDP's supply chain members continue to innovate to bridge the gap from traditional procurement to sustainability best practice.

Nearly all (95%) of responding CDP supply chain members said suppliers showing environmental leadership are more competitive over the long term, with only 5% stating that in their experience those suppliers are more costly.

Engaging with a company's supply chain is a crucial component of a holistic environmental strategy. We know from data reported to CDP that the emissions in a company's supply chain are usually far greater than its operational emissions (5.5 times higher on average); the same is true for the associated impacts and risks regarding deforestation and water security.

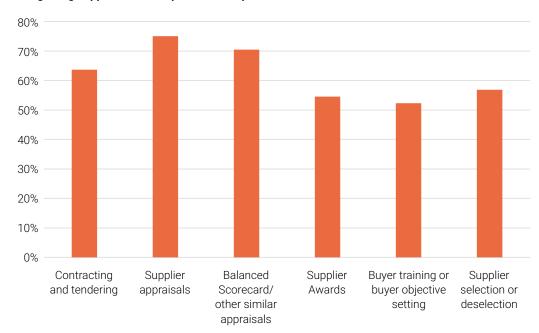
Sustainable sourcing and supply chain transparency are increasingly being recognized not only as an important part of a company's environmental strategy, but also as a fundamental part of a sound overall business strategy. This year, we surveyed CDP supply chain members to better understand how they manage their relationships with their suppliers. The survey found that 95% of responding members believe suppliers showing environmental leadership are better value companies to partner with long-term, with only 5% stating that in their experience those suppliers are more costly.

To drive more action throughout their supply chains, companies are starting to integrate environmental

data into the way they manage suppliers on a dayto-day basis. This year, 65% of responding members report using environmental metrics, including CDP data, in their supplier relationship management processes, with a further 30% saying they plan to reach that point in the next two years. By putting environmental data at the heart of procurement practices, companies are ensuring that sustainable purchasing becomes business as usual.

To achieve this, CDP supply chain members integrate environmental data into a combination of procurement tools and processes. The most popular approach, practiced by 75% of respondents, is to include environmental metrics alongside cost and quality in supplier appraisals, whether written or face-to-face. Other members have set clear expectations by including specific language around environmental performance in their contracting and tendering documents. In 52% of cases, buyer training and objectives around sustainability were highlighted as a core part of integrating data into the supplier relationship management process. Applying CDP data and environmental weightings to a variety of preexisting procurement mechanisms allows these companies to move further towards a wholly sustainable way of sourcing.

The innovation displayed by CDP supply chain members is extending the reach of their environmental leadership. By integrating data into decision-making, training buyers and incentivising suppliers, these leaders are evolving to futureproof their supply chains and reduce their impact.



Integrating supplier data into procurement processes



By using the CDP platform, Signify is connecting with strategic suppliers on climate change and carbon emissions. We have set a target to have 200 strategic suppliers report on emissions reduction activities by 2020 in order to decrease environmental impact in our supply chain. This year 160

of our suppliers reported carbon emissions reduction activities, including purchasing renewable electricity. Signify has committed to source 100% renewable electricity by 2020 as a member of the RE100 initiative. We want to see our suppliers matching our ambitions, setting renewable electricity targets, and reporting progress towards achieving them year on year.

Luc Broussaud, Chief Procurement Officer, Signify



At Firmenich, sustainability is at the core of everything we do. We strive to minimize our environmental impact and future-proof our supply chain, continuously challenging ourselves and our partners to do better. The CDP supply chain program is an excellent

example, where we encourage key suppliers to disclose their environmental impact and inspire on-going improvement. By driving environmental sustainability in our supply chain, Firmenich reduced its emissions from raw materials purchased in absolute terms, even as we grew in production and size, thereby decoupling emissions and growth. Firmenich works with suppliers that share our environmental ambitions -- who take action to reduce emissions, increase water security, and ultimately commit to zero deforestation -- because we know that all this will secure both a healthy business of tomorrow and a healthy planet. We recognize that we must do well to do good and do good to do well.

Boet Brinkgreve, Chief Supply Chain Officer, Firmenich



Accenture has the purchasing power to drive positive change on a global scale, creating more sustainable supply chains. It also allows us to advance our key priorities, including environmental action, respect for human rights, inclusion, diversity and social innovation. Accenture's Procurement Plus

organization, which I lead, is a key business partner on this journey. For example, Accenture has committed to using 100% renewable energy across our global portfolio by 2023. We will be encouraging similar ambition from our value chain, and ideally reporting progress through established platforms such as CDP supply chain. It also means our partnerships with suppliers will move beyond analysing and integrating emissions results into our processes to forging even greater engagement and collaboration that will drive uptake of this agenda at scale. We will actively seek partnerships and suppliers that are even more closely aligned to our corporate values so that, together, we will improve the way the world works and lives.

Kai Nowosel, Chief Procurement Officer, Accenture





Here at BT we take our

environmental commitment very seriously and we have a target to be a net-zero carbon emissions (Scopes 1 and 2) business by 2045. We also work very closely with our suppliers to reduce the emissions associated with our supply chain - they represent 68% of BT's total end-

to-end carbon emissions and we have a target to reduce those emissions by 29% by 2030. To achieve this, building environmental action into our procurement process is key. BT collects data from suppliers through CDP and our onboarding process ensures our environmental expectations are communicated early.

Cyril Pourrat, Chief Procurement Officer, BT



In order to meet our Science Based Target commitment, we aim to have our key suppliers - covering at least 80% of our procurement spend - disclosing their climate impacts to us through CDP by 2020. To meet this goal, Supplier Relationship Managers take every opportunity to communicate our bold commitment and the value of disclosure to suppliers.

Robert Blackburn, SVP Global Supply Management, **Stanley Black and Decker**

RESPONDING TO CLIMATE CHANGE

6,892

supplier responses to member requests for climate disclosure, up by 24% from 2018

US\$906 billion associated with climate

risk

563 MtCO₂e

reported by suppliers in emissions

US\$20.2 billion

reported annual monetary savings from reductions

Bank of America engages strategic vendors on climate change through CDP as a supply chain member, and we provide individualized feedback on their performance to both the participating vendors and their vendor managers. This has facilitated ongoing dialogue between the bank and vendors which promotes collaboration and provides us with the opportunity to recognize environmental leadership among our highestperforming vendors. For us, climate leadership includes measuring environmental impacts and establishing goals to reduce impacts. We are actively encouraging our suppliers to calculate and disclose greenhouse gas (GHG) emissions and to take concrete steps to establish and meet GHG emission reduction targets.

Beth Wytiaz SVP, Global Environmental Operations Director at Bank of America

A rising imperative

With atmospheric concentrations of greenhouse gases continuing to climb, and the impacts of extreme weather becoming increasingly evident, public concern about the growing climate emergency has undergone a step change in 2019. To limit climate change to 1.5 degrees Celsius we need to halve global emissions by 2030 and reach net zero by mid-centrury, according to the IPCC¹. In response, a number of jurisdictions made net-zero commitments this year and urgent efforts are underway to encourage governments to upgrade national targets to align with the Paris Agreement.

Climate exposures in the supply chain

This year, a record number of companies submitted disclosures on climate change. CDP supply chain

members made requests to 13,065 suppliers, with 6,892 responses received from businesses headquartered in 98 different countries. This is a 24% increase on the 5,545 responses received in 2018.

These disclosures illuminate the scale of the risk posed by climate change. Suppliers reported combined annual Scope 1 and Scope 2 emissions (from direct operations and purchased electricity) – of 7,976 MtCO₂e, an amount greater than the annual greenhouse gas emissions of the United States and Canada combined. This climate-related exposure could have a potential financial impact in excess of US\$906 billion, from phsyical risk such as extreme weather events or transitional risk such as reputational or policy related drivers².

	Total estimated annual CO2e savings (MtCO2e)	Number of initiatives reported as paying back in three years or less
Energy efficiency: Building fabric	13	122
Energy efficiency: Building services	33	1266
Energy efficiency: Processes	202	1492
Fugitive emissions reductions	4	38
Low-carbon energy installation	73	151
Low-carbon energy purchase	46	152
Other	83	433
Process emissions reductions	109	544
Grand total	563	4,198

on As a n our pack 78%

As a CDP supply chain member, Nissan engages our key suppliers for our vehicle production, with a 78% response rate in FY 2018 on the topic of climate change. We actively monitor suppliers' response rate to the CDP questionnaire and the distribution of CDP scores as metrics to measure the success of our engagement annually. However, we want our suppliers to go further on energy efficiency, so we are now promoting our THANKS program (Trusty and Harmonious Alliance Network Kaizen Activity with Suppliers). This is a joint improvement program that shares experiences from our own plants to help suppliers to reduce their electricity, gas and other energy costs and their CO₂ emissions. Through this program and our engagement with CDP, we hope to see more suppliers undertake actions to reduce emissions year on year.

Environmental Strategy Group, Sustainability Development Department, Nissan Motor Co., Ltd.

10

^{2.} CDP analysed the full dataset and they have been normalised by being converted to US\$. Anomalous results were removed.

11% Average % of total electricity from renewable sources

4% of suppliers reported having a renewable electricity target

92 number of suppliers who have signed up to RE100

70% of CDP supply chain members are actively engaging their suppliers on the topic of renewable electricity

Enormous reduction potential

The flip side of these exposures is the great potential for reducing emissions throughout corporate supply chains. Suppliers reported a total of 563 MtCO₂ein emissions savings in 2019. These were achieved through activities such as improved energy efficiency, the use of low-carbon energy, and the reduction of process emissions. Importantly, emissions-saving activities were associated with substantial financial savings. A total of US\$20.2 billion has been reported in monetary savings in 2019. This highlights the increasingly strong business case for companies to take action on climate change.

However, despite this progress, emissions need to be falling if the world is to tackle climate change: this year, only 29% of suppliers reported absolute decreases in emissions.

One approach that can deliver real impact is to encourage suppliers to purchase more renewable electricity, accelerating the decarbonization of

the power sector. Currently, 56% of respondents report details of their energy consumption. These companies purchased³ an average of 11% of their electricity from renewable sources. The potential for reducing emissions globally by engaging with suppliers to improve this performance is great. Were all suppliers to the CDP's 125 supply chain member companies to increase the proportion of the electricity they buy from renewables by 20 percentage points (bringing the average up to 31%), annual global emissions would be reduced by a gigaton⁴.

However, suppliers are not currently demonstrating that level of ambition. Just 4% of suppliers (292 companies) report having a renewable energy target, while only 92 (1.3% of suppliers) have signed up to the RE100, a voluntary initative (led by The Climate Group in partnership with CDP). whose members commit to sourcing 100% renewable power. This is in stark comparison to their customers. This year, 36% (45) of CDP supply chain members have a renewables target and a quarter (31) are members of the RE100 commitment.

Anheuser-Busch InBev has committed that, by 2025, 100% of purchased electricity will be from renewable sources and has set a science-based target of a 25% reduction in CO₂ emissions across our value chain. We are actively encouraging our suppliers to follow suit through different initiatives – and we are starting to see the positive impacts, with a 4.5% decrease on year one. We engage strategic suppliers on climate change through CDP supply chain, and this year 44% reported purchasing renewable electricity, up from 35% last year. This is promising start, but we want to see more suppliers taking action as this will globally accelerate the transition into a lower-carbon economy and net zero.

Virginia Covo, Global Director, Sustainability Supply Chain, Anheuser-Busch InBev



How buyers should engage with their supply chains:

Beginner: Ask suppliers what proportion of their electricity comes from renewable sources. Encourage those starting out to take first steps, such as purchasing renewable electricity for the first time and setting a target to source at least 20% renewable electricity.

Intermediate: Encourage suppliers to send a powerful signal to the market by committing to 100% renewable electricity, for instance by signing up to the RE100 initiative. Ask them to report annually on progress towards this target.

3. The full data set was assessed and responses that were fundamentally incomplete or anomalous were removed. CDP deems data fundamentally incomplete when fields critical to understanding renewables were not filled out or when data reported was inconsistent throughout the disclosure.

4. Based on the International Energy Agency's 2017 global grid emissions factor

PROTECTING FORESTS

US\$15.8 billion

associated with risks related to forest commodities

72%

of the total financial impact at risk from deforestation is associated with reputation and market trends.



27% of suppliers report having a commitment to eliminate deforestation and/or conversion

71% of supply chain members

of supply chain members report having a commitment to eliminate deforestation and/or conversion

Focus on forests

Deforestation has risen up the political agenda this year, with the rate of deforestation in the Amazon rainforest rising to its highest level in 11 years⁵. It has brought additional focus on demand for the commodities that drive deforestation. Halting deforestation and allowing restoration and recovery of forests could deliver up to 30% of the cost-effective emissions reductions needed by 2030 to hold global warming below 2 degrees Celsius⁶.

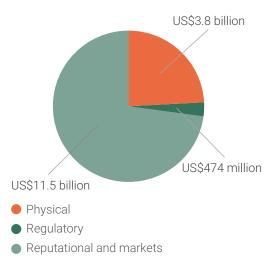
Drilling down into the supply chain

This year, 14 supply chain members requested that 536 suppliers provide information on the production and use of five commodities linked to deforestation: timber, palm oil, cattle products, soy and rubber. They received 334 responses.

The extent to which these suppliers are addressing deforestation risks remains limited. Only 47% reported undertaking a forests-related risk assessment, and building internal skills and capabilities to address these risks.

Despite this limited risk assessment, suppliers reported total potential financial impacts of at least US\$15.8 billion associated with risks linked to the production, consumption and trade of forest commodities.

Financial impact from forest-related risks (US\$)



Beyond the food value chain

Addressing deforestation is most effective when stakeholders work together. A number of collaborative platforms have been developed, such as the **Accountability Framework initiative** (**AFi**), which brings 10 leading NGOs together to provide clear guidance on how to implement nodeforestation commitments.

Environmental campaigns have successfully connected forest-risk commodities to food and packaging value chains. However, these commodities find their way into many other sectors on a large scale. For example, the automotive sector is a major consumer of leather, timber and rubber, while the chemicals industry uses considerable volumes of palm oil and soy. At present, buyers in these sectors rarely engage their suppliers regarding deforestation.

Cascading commitments and policy

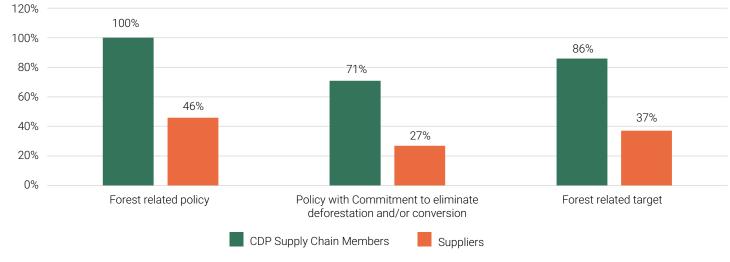
The number of corporate deforestation pledges increased rapidly in the early 2000s, with over 470 companies announcing commitments, yet there has been very little progress towards these goals in the last five years⁷. CDP supply chain members have set a high bar for policies and commitments on deforestation, with 71% committing to eliminate deforestation and/or conversion from their operations and supply chains. This leadership is not, however, cascading down their supply chains: just 27% of suppliers reported policies to eliminate deforestation and/or conversion. Similarly, while 86% of CDP supply chain members have set deforestation-related targets, that figure drops to 37% among their suppliers.

For companies to meet targets to eliminate deforestation, their suppliers need to match their level of ambition. CDP provides supply chain members with analysis and tools to support them in engaging suppliers more effectively. Thanks to funding from donors including **Norway's International Climate and Forest Initiative**, CDP carries out direct regional outreach in Latin America, China and Indonesia, covering engagement with suppliers and policy stakeholders.

As a white feather broiler [poultry] enterprise with the most complete industry chain in China, Sunner Group knows that forests are an essential resource for mitigating global carbon emissions. As a new CDP supply chain member, we will encourage suppliers and work with them to ensure that our supply chain is protected from forest damage. This will help us facilitate the sustainable development of the circular economy industry chain and contribute to China's strategic goal of agricultural modernization.

Shimmer Fu, Chairman of Fujian Sunner Group





Deforestation associated with our value chain is a significant concern for Walmart. As part of Project Gigaton, a Walmart initiative to work with suppliers to avoid one billion metric tons of emissions from our value chain by 2030, we encourage our suppliers to set and report upon deforestation goals. This year we were excited to pilot engagement on deforestation by asking suppliers to disclose their forests information through CDP Supply Chain. We know that no one company can solve climate change or reduce deforestation alone, and we're excited to partner with CDP on this topic to drive action going forward.

Mikel Hancock, Senior Director, Sustainable Products, Walmart Inc. KAO takes deforestation very seriously as it could cause a reputational risk if not managed correctly. For example, we use paper pulp in our "Merries" or disposable diapers which have had a substantial growth in Asian sales to over 100 billion yen. If a negative campaign was launched against pulp, the corporate and product brand image would be damaged, posing a risk of market shrinkage and reduced sales. **To avoid this, as a CDP supply chain member we engage our paper/pulp suppliers so they report on their certifications or material traceability to ensure we are provided with certified materials.** KAO aims to implement procurement of only raw materials that can be traced back to their place of origin by 2020, using the Sustainable Pulp and Paper Procurement Guidelines.

Kao Corporation

How buyers should engage with their supply chains:

Beginner: Buyers should engage suppliers of any goods that contain timber, palm oil, cattle products, soy or rubber and ask if they have undertaken a forest-risk assessment. It is important to begin the conversation, as it can take a number of years to develop and deploy a sophisticated forest risk management strategy. Starting the conversation can prompt suppliers to begin gathering intelligence on current practices internally, beginning their journey towards zero deforestation.

Intermediate: Zero-deforestation commitments require ambition to cascade down the supply chain: it is important that suppliers adopt the same level of ambition as their customers. Buyers should encourage suppliers to set a policy with a time-bound commitment to eliminate deforestation and/or conversion, and report progress towards that commitment annually.

WATER STEWARDSHIP IN THE SUPPLY CHAIN

1,975 suppliers responded to

member requests for water disclosure

US\$78 billion

associated with identified areas of water risk

60%

of organisations report having board-level oversight on water

Climate change impacts

The impacts of climate change continue to put our water supplies at risk. The World Economic Forum ranks "water crises" as the fourth biggest global risk by impact facing society over the next decade, behind weapons of mass destruction, the failure of climate change mitigation and adaptation, and extreme weather events⁸.

Suppliers under scrutiny

This year, 44 CDP supply chain members asked 3,746 of their suppliers to provide disclosures regarding their efforts to manage and govern freshwater resources, receiving 1,975 responses, up from 1,709 in 2018.

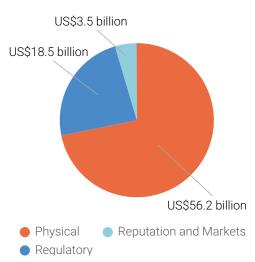
Suppliers reported US\$78 billion at risk from water security impacts across their operations and value chains. For buyers, this could mean disruption to delivery of goods and services, increased costs and reputational damage.

The majority of water risks reported by suppliers are physical, related to drought, flooding and severe weather events. Suppliers reported US\$56 billion in potential financial losses related to these physical risks, and US\$18 billion in potential regulatory risks related to water, such as regulation of discharge quality and volumes, higher water prices and difficulties in obtaining water permits.

A call to action to measure, manage and disclose

Companies are asking their suppliers to measure and report water usage, and to undertake risk assessments and set public policies. Many buyers are also asking suppliers to actively manage their water use through structured targets and goals. Suppliers also face calls to improve governance and to ensure board-level oversight of waterrelated risks. We are seeing progress in this regard: This year 60% of suppliers reported board-level oversight on water. This is a small increase from 57% last year, and 31% in 2017.

Top water security-related risks reported



We are working with our suppliers to encourage them to take positive water security action such as **reporting their water consumption information through CDP, ensuring that water risks are governed at the C-suite level and setting a public policy and target.** Furthermore, our intention is to identify possibilities for collaboration with our suppliers, such as the METRO Water Initiative, which took place for the third time in 2019.

Michael Goebbels, Director Corporate Responsibility, Metro

Water risk in the supply chain is of crucial importance for the BMW Group, not just from a reputational point of view, but also from an operational one. Any disruption in the supply chain presents a challenge for the BMW Group; water flooding of supplier locations and, for some technologies, even water scarcity have the potential to disrupt the production process for suppliers with severe consequences for our supply of components. **So we engage our suppliers covering 75% of procurement spend through CDP and ask them to assess their water risks. Key contractually fixed demands include the existence of a water policy as we need to know that our suppliers are taking water security as seriously as we are.**

Dr. Andreas Wendt, member of the Board of Management of BMW AG responsible for Purchasing and Supplier Network

Givaudan's supply chain faces water security risks. We are looking for our strategic suppliers to move beyond reporting water accounting information and into active management. We take action to reduce risk by working with suppliers to understand their water impact, and take action to reduce it. This includes engaging strategic suppliers on water security through CDP as a supply chain member. **We measure the success of our engagement in actions undertaken by suppliers demonstrating improvement year on year -- for instance, whether they report a structured target or goal as well as their CDP score.**

Hallvard Bremnes, Global Head of Sustainability, Givaudan

Case study -- Collaborating across the automotive value chain

Over the last two years, nine major global car and car parts manufacturers have worked together to agree on a set of key water stewardship criteria on which to engage their suppliers.

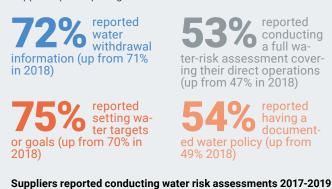
The purchasing companies – all CDP supply chain members – were BMW AG, Ford Motor Company, General Motors Company, Honda Motor Co., Ltd., Jaguar Land Rover Ltd, Mitsubishi Motors Corporation, Nissan Motor Co., Ltd., Toyota Motor Corporation, and Volkswagen AG.

They wanted to send a unified message to suppliers in the industry that, if they wish to sell to any of these buyers, they will be asked to meet common water stewardship criteria, namely:

- Report water accounting information;
- Undertake a water risk assessment;
- Set a water target or goal; and
- Set a public water policy.

To promote this collaboration, the group provided written guidance to suppliers and hosted joint webinars.

The result was positive. On average, the number of suppliers meeting each criteria rose by 6 percentage points in comparison with the previous year, despite an increase in the total number of suppliers participating:





Water security in the supply chain presents a strategic risk to Juniper Networks. As part of Juniper's business continuity planning, we have asked suppliers that present a potential impact on Juniper's ability to deliver products to customers to report on water-related issues through the CDP supply chain water questionnaire. Disclosing through CDP is important to us as, it helps us to understand where suppliers are on their water journey. **We assess their overall performance using CDP's score and whether they set a public policy or target related to water. Progress on the topic is discussed with them during business reviews and on their scorecards, bringing water into business conversations rather than as an add on.** Our suppliers recognize this as an opportunity to collaborate with us to manage risks and create productive, long-term relationships and explore potential efficiencies and cost savings.

Jolene Iyer, Sr. Manager, Sustainability and EHS at Juniper Networks



How buyers should engage with their supply chains:

Beginner: Buyers should begin engaging suppliers on key starter metrics, such as measuring and monitoring water withdrawal, consumption and discharge, and request that they conduct a water risk assessment.

Intermediate: Building on these risk assessments, buyers should further engage those suppliers who report they face water security risks in their own operations or supply chains. To mitigate these risks, suppliers should integrate water-related issues into long-term business objectives, set timebound commitments, and publish robust public policies.

REGIONAL OVERVIEW

	Global	North America	South America	Asia	Oceania	Europe	Africa
Climate							
# of respondents	6892	2424	610	2067	47	1726	47
% reporting scope 1	68	62	51	76	60	73	55
Total scope 1 emissions (tCO2e), in millions	4,346	1,308	166	1,324	5,922	1,475	66,068
% reporting scope 2	52	47	32	62	49	61	38
Total scope 2 (market-based; tCO2e), in millions	362,401	32,285	176	327,520	7	2,390	21
% reporting upstream scope 3	18	13	10	19	15	25	19
Total upstream scope 3 (tCO2e), in millions	11,158	7,278	44	721	29	3,075	9
% with emission targets	46	31	21	66	43	52	36
# with reduced emissions	1975	552	106	685	15	601	14
# with science-based targets	306/590	58/153	5 15	140/274	1 5	102/141	0/1
% engaging upstream suppliers	36	32	29	30	47	51	19

Water							
# of respondents	1994	610	256	640	11	455	22
reported water withdrawal volume	1252	370	122	440	7	297	16
# with water risk assessment	1171	324	109	402	7	314	15
# with water targets	1371	394	157	467	5	335	13
# with public policy on water	914	234	67	372	3	231	7
% engaging upstream suppliers	17	18	7	18	9	22	9

Forests							
# of respondents	334	121	102	48	4	58	1
# with forests risk assessment	158	52	35	28	4	38	1
# with traceability	184	69	38	26	4	26	1
# with targets	111	41	13	21	2	33	1
# with deforestation policy	155	53	33	27	3	38	1

ACKNOWLEDGEMENTS

CDP would like to thank the members and responding companies consulted during the preparation of this report. We would also like to thank Lucas Joppa for his foreword.

We are grateful to receive funding for CDP's Power of Procurement project from Norway's International Climate and Forest Initiative.

Our appreciation goes to our Brazilian scoring partners Gestão Origami, and our Japanese scoring partners. And we remain indebted to our global scoring partner, ADEC Innovations, for its help and support.

Thanks also go to the contributions from the CDP Supply Chain, Climate, Forests, Water Security and Communications team, with special mention to Hannah Doughty, Hugo Ernst-Jones, Imogen Terry, Leo Berthon, Matthew Sumners, Talia Rudee, Tegan Tallulah, Viera Ukropcova, Tom Coleman and Christina Copeland.

Sonya Bhonsle **Global Head of Supply Chain, CDP**

We are grateful to receive funding for CDP's Power of Procurement project from:



CDP scoring partner



Norway's International Climate and Forest Initiative



CDP supply chain premium and lead members 2019



* Alphabet, Inc. and The LEGO Group are also CDP supply chain lead members



CDP Contacts

Paul Dickinson Executive Chairman

Paul Simpson Chief Executive Officer

Sue Howells Chief Operating Officer

Dexter Galvin Global Director, Corporations & Supply Chains

Sonya Bhonsle Global Head of Supply Chain

UK & Europe

Rea Lowe Matthew Sumners Hannah Doughty Kate Redington Hugo Ernest-Jones Soline Bonnel Linda Kannenberg

North America

George Hodge Andrew Cummings Julia Silberman Talia Rudee Pilar Bennett

Latin America

Lauro Marins Rebeca Peres de Lima Lucas Ribeiro Caio Monaco

Hong Kong & Southeast Asia

Pratima Divgi

India

Damandeep Singh

CDP Board of Trustees

Chairman: Alan Brown

Annise Parker Jane Ambachtsheer Stephen T. Chow Jeremy Burke

Justin Johnson

Katherine Garrett-Cox

Rachel Kyte Christine Loh

Ramakrishnan Mukundan Jeremy Smith

Takejiro Sueyoshi

Martin Wise

CDP Headquarters

4th Floor Plantation Place South 60 Great Tower Street London EC3R 5AD Tel: +44 (0) 20 3818 3900

CDP North America

127 West 26th Street New York, NY 10033 Tel: +1 (212) 378 2086

www.cdp.net info@cdp.net

© CDP 2019

This report and all of the public responses from corporations are available for download from www.cdp.net

Japan

Ken Yamaguchi

China

Wanyu Sung