

CLIMATE AND BUSINESS Partnership of The Future

CDP India Annual Report 2019

Written on behalf of 525 investors representing US\$96 trillion in assets

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CEO FOREWORD



“Governments must urgently step up their ambition to give business the clarity and confidence they need to invest in the zero-carbon transition.”

Climate change is not a distant, potential threat. It is here right now, and already affecting millions of lives across the globe. The Australian bushfires, which started raging in late 2019, have affected nearly 10 million people, including at least 28 human lives that have been lost. This is just one example of recent extreme weather events made more likely by climate change.

The most devastating impact of climate change and extreme weather is always going to be loss of human life, but its impact on ecosystems, communities and the global economy can be dire too. In 2019, CDP analysis found that 215 of the biggest global companies estimate the financial implications of climate risks to be close to US\$1trillion, including US\$250 billion worth of ‘stranded assets’, at potential risk of being made economically unviable.

The cost of exceeding a temperature rise of 1.5 degrees Celsius – the proposed “guard rail” of safety by the Intergovernmental Panel on Climate Change (IPCC) – could be catastrophic. It would have grave implications on water and food security, living standards, the economy and human health for our generation, and generations to come. In economic terms the difference between 1.5 and 2 degrees is estimated at \$15 trillion in damage. We cannot afford to dither and delay substantive action any longer.

2020 is a critical year. Five years on from the Paris Agreement, the time has come for national governments to upgrade their ambition to reduce emissions through their national plans. This year needs to herald the start of a super decade of climate action, cutting emissions in half, to give any chance of limiting global warming to 1.5°C.

And we are already seeing great examples of environmental leadership, with forward-thinking companies proactively taking action. The Science Based Targets initiative has snowballed into a global phenomenon, with more than 750 of the world’s biggest companies setting emissions reduction targets that are grounded in climate science. Likewise, corporate demand for renewable power is rapidly growing with 220+ companies now working towards 100% renewable electricity.

Transparency is the foundation for meaningful climate action. In 2019, more companies than ever before – 8,400+ representing over 50% of global market capitalization – disclosed through CDP, enabling them to comply with the Task Force on Climate-related Financial Disclosures (TCFD). Disclosure of quality data leads to smarter decisions and informs investors, companies and governments of the actions they need to take. It’s encouraging to see more companies setting longer-term targets; our data will be key to seeing how they are performing against these over time.

But growing corporate action is not enough. Governments must urgently step up their ambition to give business the clarity and confidence they need to invest in the zero-carbon future. Those who act first on climate will seize the benefits of the transition. CDP will play its part by continuing to set the standard, and providing the tools to help us achieve it together. 2020 must be the year we all play our part to ramp up worldwide ambition on climate without delay.

– Paul Simpson, CEO, CDP

INTRODUCTION

Time to speed up along the green pathway

The failure of the world's governments to come to a meaningful agreement at the Conference of Parties (COP25) in Madrid clearly underscores the enormity of the task – How to fashion a global agreement in the time of hyper nationalism? Unfortunately, progress has been excruciatingly slow, with most important decisions being conveniently shelved for next year.

In this grim scenario emerged two sets of unlikely heroes – the world's schoolchildren who led huge marches and the growing band of investors who are now determined to take action to safeguard their investments. Many top corporates too have expressed deep concern and asked for consistent policy response to address the climate crisis.

The Friday for Future protest led by Greta Thunberg from Sweden --anchored by Ridhima Pandey in India -- surprised many so-called responsible adults by highlighting the concerns young people feel for their future. So much so that Greta has been nominated the Time magazine person of the year.

On the other hand, a record **631 investors managing over US \$37 trillion** under the banner of "The Investor Agenda¹" signed the Global Investor Statement to Governments on Climate Change, which called on world governments to:

- ▶ Achieve Paris Agreement Goals
- ▶ Accelerate private sector investment into low carbon transition
- ▶ Commit to improve climate-related financial reporting

Climate change, now increasingly being acknowledged as a climate crisis and even climate emergency, is an enormous economic and policy problem, sometimes positing two different narratives -- environmental integrity versus development imperatives. While this debate rages, the world is losing valuable time. As of December 2019, Nationally Determined Contributions (NDCs) have over 90% probability of exceeding 2°C; the current policy pathways have a higher than 97% probability of exceeding 2°C.²

According to World Bank³, even if preventive measures are taken along the lines of those recommended by the Paris climate change agreement of 2015, India's average annual temperatures are expected to rise by 1-2°C by 2050. "These weather changes will result in lower per capita consumption levels that could further increase poverty and inequality in one of the poorest regions of the world, South Asia," warns the World Bank.⁴ Additionally, the Global Climate Risk Index 2020⁵, released by the

CDP India Climate Change Rising Stars 2019

Indusind Bank	A-
Infosys Limited	A-
Mahindra & Mahindra	A-
Tata Consultancy Services	A-
Tata Global Beverages	A-
Tech Mahindra	A-
Wipro	A-
YES BANK Limited	A-



631 investors
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environmental think-tank Germanwatch during the COP25 meet in Madrid, ranks India as the fifth-most vulnerable country in the world in terms of experiencing extreme weather events.

Even though COP25 did not result in addressing key carbon market issues, the private sector called for more ambitious efforts from governments to tackle climate change with all focus on 2020 – when climate action will actually count. Upto 177 companies have committed to set 1.5°C-aligned science-based targets across their operations and value chains, as the climate movement doubles in size since September 2019.⁶ UN Secretary-General Antonio Guterres called on leaders from the private sector and civil societies to challenge governments to make clear economic development policies that will enable companies to invest decisively in a net-zero future.⁷

In September, at the UN Climate Action Summit, several initiatives towards promoting low-carbon economy were launched. With India and Sweden in the lead, a host of nations including Argentina, Finland, France, Germany, Ireland, Luxembourg, the Netherlands, South Korea and the UK – and with the participation of a group of companies

including Dalmia Cement, DSM, Heathrow Airport, LKAB, Mahindra Group, Royal Schiphol Group, Scania, SpiceJet, SSAB, ThyssenKrupp and Vattenfall – a new Leadership Group for **Industry Transition** was announced. This group will drive the transformation in the hard-to-decarbonize and energy-intensive sectors.

The Indian Prime Minister, Narendra Modi said that “each one of us has to discharge climate responsibilities based on our situations and capacities. I hope that work under the industry transition track will facilitate early diffusion of technology and support to developing countries in this journey”.⁸ The industry transition track will be based on three central pillars: public-private collaboration, industry commitments and innovation and technology exchange.

Industries contribute approximately one-fourth of India’s total greenhouse gas (GHG) emissions.⁹ The estimated consumption of raw coal by industry has increased from 502.82 MT during 2007-08 to 841.56 MT during 2016-17 with a CAGR of 5.89%.¹⁰ Total final energy consumption in India in 2016 was 572 Mtoe, with industry demanding 193 Mtoe, or a 34% share.¹¹





The manufacturing industries and construction sector together account for 18.4% of total emissions from the energy sector.¹² With all this data in hand, decarbonization of the industry sector, especially the hard-to-abate sectors, is imminent. These sectors are particularly challenging to decarbonise because of their requirements of high-temperature heat and/or the production of process emissions.

“Governments must urgently step up their ambition to give business the clarity and confidence they need to invest in the zero-carbon transition,” Paul Simpson, CEO, CDP said.

Indian industry, through its engagement with government programmes as well as CDP, has shown impressive progress over the years. However, a lot more remains to be done. The Bureau of Energy Efficiency’s PAT scheme has come out with a total of five cycles covering 13 energy-intensive industry sub-sectors including thermal power plants, electricity distribution companies, railways and commercial buildings (hotels). A total energy saving target of 17.84 million tonnes of oil equivalent has been assigned to the Designated Consumers (DCs) under the scheme.¹³

The number of companies engaging with CDP has seen a steady increase and in 2019 we saw a 13% hike with 59 companies responding as compared to 52.

We are seeing many companies already playing their part through setting emissions reduction targets in line with climate science, committing to using 100% renewable electricity or working to remove commodity-driven deforestation from supply chains. They are showing that all types of businesses – including carbon-intensive industries such as energy, chemicals and mining – can get on a low carbon path. And they are set to reap the benefits: Science-based targets drive innovation, reduce costs, and enhance profitability, helping companies gain long-term competitive advantage and safeguard their future prosperity. However, it is important for State Action Plans on Climate Change (SAPCC), which serve as the primary policy documents at sub-national level, to have a larger scope – to include industries and seek upscaled focus on institutional capacities. It is time for the economy to speed up along the green pathway.



IS INDIA INC COGNIZANT OF CLIMATE CHALLENGE?

Governance and strategy

90% provide incentives to senior staffers to help meet targets

71% provide monetary rewards

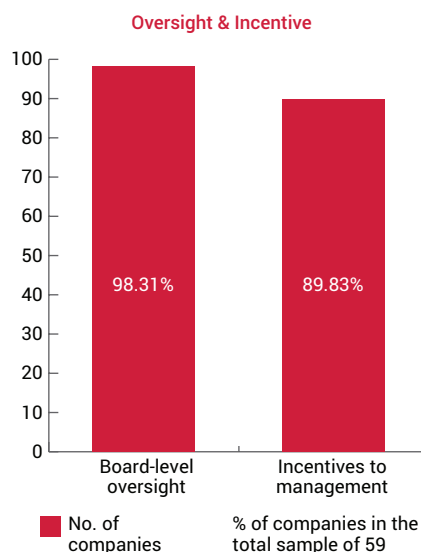
Almost all boards of top responding companies now have committees and members designated to addressing climate risk. A whopping 58 respondent companies, 98% of the responding sample, have board-level oversight of climate-related issues.

Top managements have integrated these concerns in performance evaluation of key personnel—nearly 90% (53) provide incentives to senior staffers to help meet targets, 71% (42) provide monetary rewards and 37 give non-monetary rewards for recognising,

monitoring and overseeing progress in climate-related targets.

The most **common governance mechanisms in companies that have integrated climate issues in their business strategy** are:

-  Monitoring, implementation and performance of climate objectives
-  Oversight of major capital expenditures
-  Reviewing and guiding of annual budgets, business plans, risk management policies and strategy
-  Setting of performance objectives



An effective and efficient climate governance structure ensures accurate assessment of its climate-related risks and opportunities, an important matrix for investors. It enables a company to take appropriate and informed strategic decisions on how to tackle these risks while charting its journey towards climate-related goals.

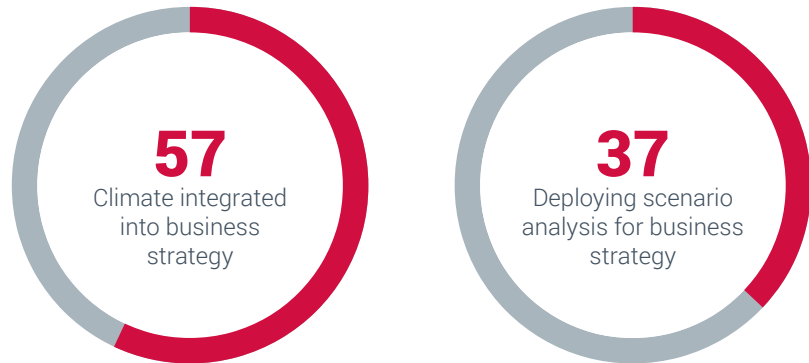
57/59

Indian companies that responded to CDP have incorporated this approach in their business strategy

Embedding a sustainable and climate-focused approach in core business decision-making also creates long-term stakeholder value and allows a company to tap a range of sources of green financial capital such as green bonds. The 2019 disclosure statistics show that 57 out of the 59 Indian companies that

responded to CDP have incorporated this approach in their business strategy. Of them, two-thirds use climate analysis tools such as models or scenarios enumerated under the NDCs, IEA's 2 Degree Scenario (2DS) to inform their business strategy.

Climate change issues integrated in business strategy (Number of companies)



HOW CLIMATE RISK ASSESSMENT BUILDS RESILIENCE IN BUSINESSES

Risks and opportunities

The potential negative impacts of climate change outweigh the costs of mitigating them, and there are significant opportunities to be realized in the process of transition, according to economists. To successfully transition to a low-carbon economy, meet the conditions of the Paris agreement and achieve sustainable development goals, an organization should be able to evaluate its exposure to climate-related risks and opportunities. This evaluation should consider different timeframes including long term.

In this decade, but especially in the last three years, extreme weather events swept the globe, destroying communities and bringing huge economic losses. Meanwhile, rapid technological shifts as a result of the transition to a low-carbon economy have made the financial sector sit-up and take note.

Increasingly, financial regulators and investors are focused on ensuring the private sector is ready for the risks and opportunities of climate change. In 2018, global companies responding to CDP disclosed information on whether they were exposed to climate-related

risks and opportunities. According to CDP's analysis almost half of all companies disclosing to CDP in 2018 identified risks and opportunities which could have a substantive impact on their business. Just 32% reported that they did not identify either risks or opportunities¹⁴.

Some 6,900 companies reported to CDP in 2018 on the financial risks posed to them, both directly and indirectly, from climate change. Analysts paid particular attention to respondents from among the largest 500 companies globally. The \$2.1 trillion in benefits is estimated from responses at 225 of those biggest companies. CDP also tallied up \$970 billion at risk—more than half of it anticipated within 5 years—from the disclosures of 215 of the world's largest 500 companies. The threats are largely seen to be coming from possible government regulation (such as carbon taxes), market shifts related to climate change (such as higher insurance premiums) or direct interference with operations. The financial services industry faces almost \$700 billion in risks from regulation, market sentiment or other indirect factors, according to the report, with potential gains of

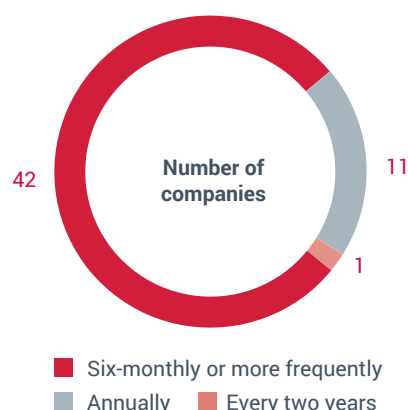
nearly \$1.2 trillion. Analysts criticized the industry for reporting practices that raise a magnifying glass to its customers, rather than itself. “[T]he finance sector is likely to be missing some risks,” the CDP report states in particular, an expression of trouble that could come to the businesses beyond “potential risks to their direct operations,” such as branding issues or unforeseen price swings¹⁵.

During the 2018 period 16 Indian businesses shared threats to their business due to water scarcity and climate change, these included Infosys Ltd, Tata Consultancy Services(TCS), GAIL, Axis Bank, Kotak Mahindra Bank, State Bank of India, Mahindra and Mahindra Financial Services, Hindustan Zinc, Indian Hotels Co. Ltd, Shree Cement, Tata Chemicals, Tata Global Beverages, Tata Motors, Tata Power Co, Wipro and Arvind Ltd.

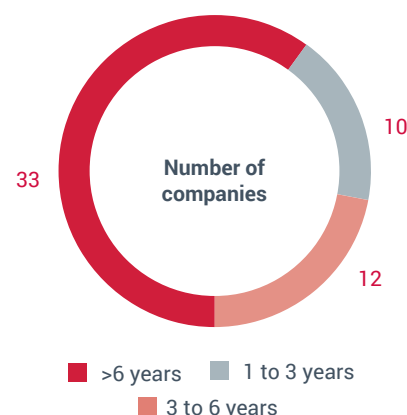
An organization’s journey towards environmental stewardship is directly related to the quality of the process of identifying, assessing, and managing its climate-related risks and opportunities. CDP aligns completely with the Task Force Related Financial Disclosures (TCFD) in categorizing these risks and opportunities.

In 2019, upto 57 of the 59 responding companies stated that they have a process for risks assessment; 51 declared that their process of identifying, assessing and managing climate-related risks *is integrated into the multi-disciplinary, company-wide risk identification, assessment, and management process* which is considered a best practice. The remaining six stated that they have a specific climate change risk identification, assessment, and management process.

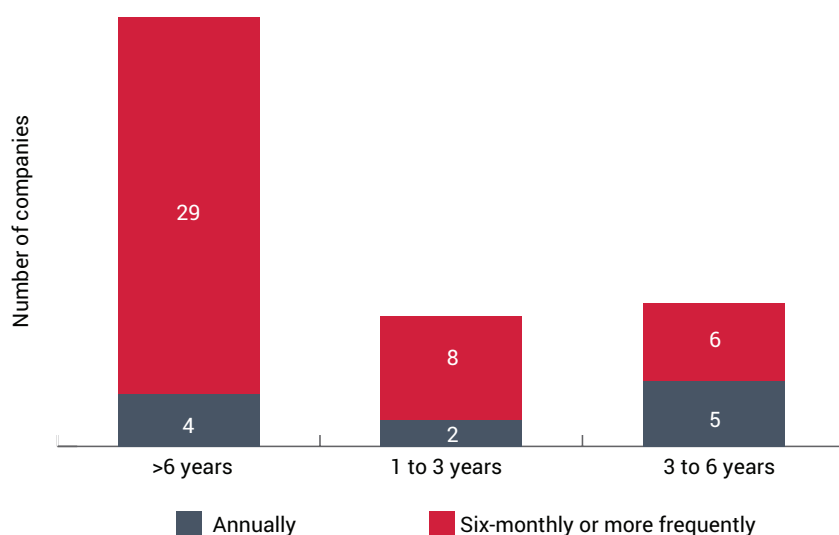
Frequency for identifying and assessing climate-related risks



Time horizon considered for climate-related risks



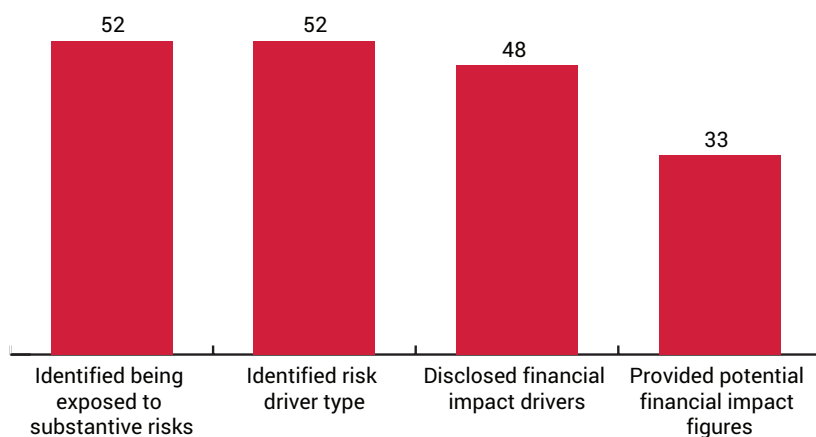
Risk assessment timeframe vis-à-vis frequency



The frequency and time horizon for risks assessment is also key to building resilience into a business, and as statistics show, most Indian companies follow the best practice of risk assessment every six months. Many companies also use a long-term lens, >6 years, in carrying out these assessments.

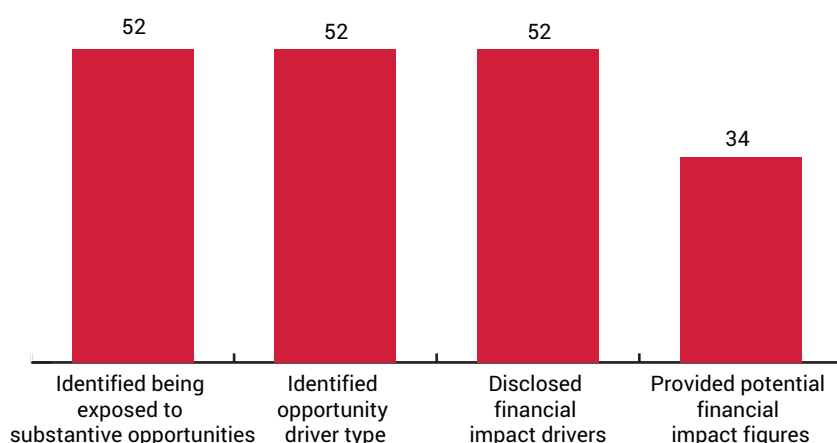
A further study of the risk assessment yields an interesting picture: Of the 43 responding companies that assess risks annually, 29 (67%) also consider risks for more than six years into the future, clearly promoting a long-term vision.

Depth of risk assesment by number of companies



We also found that 88% of reporting companies have identified risks and 92% have identified opportunities that have a substantial financial impact. These were further analyzed to see how many companies were able to go the last mile on assessment --being able to put a financial figure to the identified risk/opportunity. Interestingly, companies were able to valueate opportunities. They calculated that total of INR 1550 billion was the cost of the impact of climate risks and INR 2474 billion, the cost of climate opportunities.

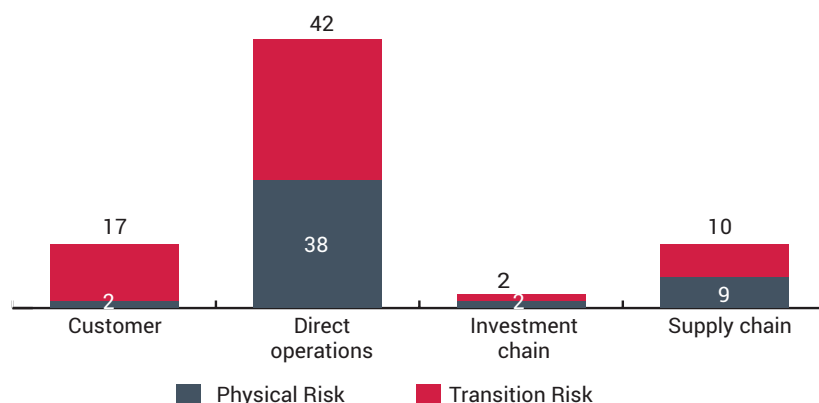
Depth of opportunities assesment by number of companies



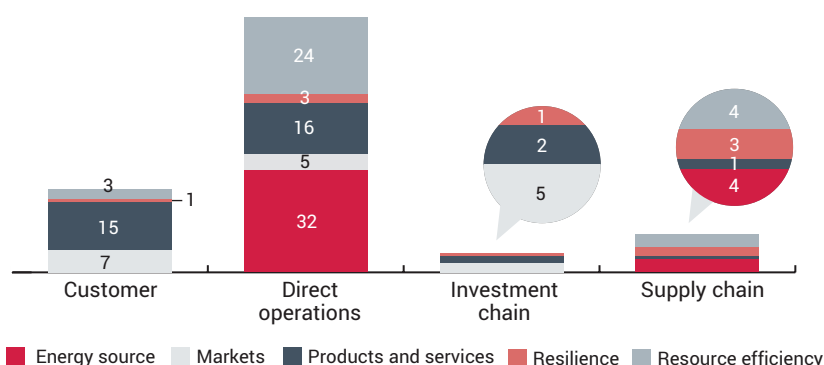
88%
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Through this analysis, we also tried to identify the areas of the value chain impacted by these risks and opportunities. While 'direct operations' of companies are impacted equally by physical and transitional risks, in the case of 'customers', transition risks seem to be more pertinent. This reflects the fact that a customer could render a product uncompetitive by substituting it with an alternative that is less carbon intensive.

Number of companies identifying risks drivers by value chain



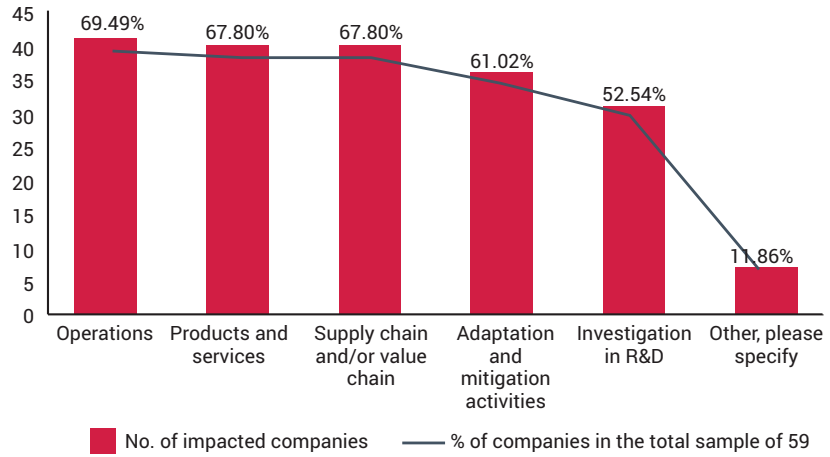
Number of companies identifying opportunity drivers by value chain



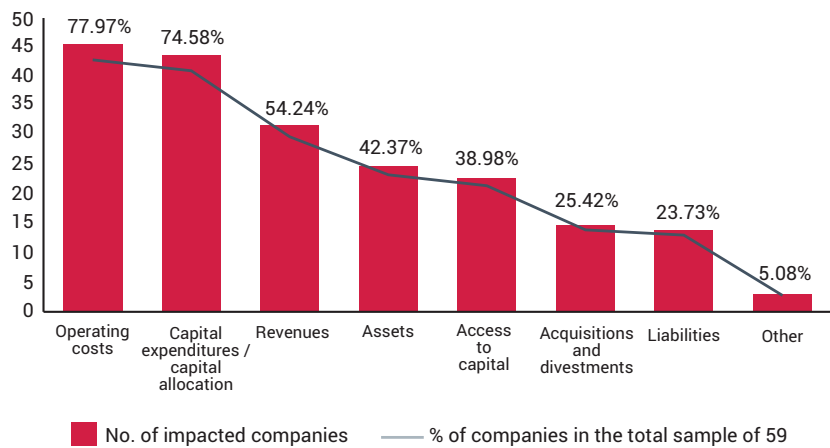
As with the value chain, it is also important for companies to identify and understand where their businesses and financial statements have been impacted by climate risks and

opportunities. Companies have identified Operations and Operating costs as the key areas of impacted, followed by Products & Services and Capex.

Business processes impacted by climate change risks & opportunities



Financial manifestation of climate change risks & opportunities



WHY COMPANIES NEED TO DEAL WITH VALUE CHAIN EMISSIONS

Engagement

Most of the GHG emissions of companies can be traced to their value chain and this is particularly true of the IT, retail and consumer goods sectors. Decarbonizing the value chain can thus have a large and efficient impact on achieving emission reduction targets. This also improves the long-term sustainability of all the companies in the chain and reduces both upstream and downstream emissions.

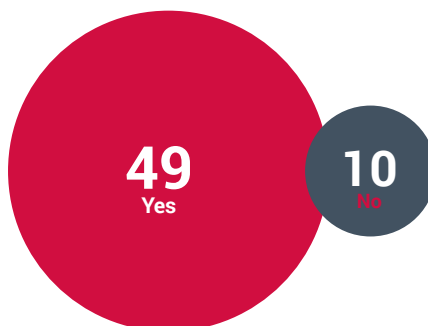
As CDP Global report “Changing the Chain¹⁶” points out for companies and their suppliers, taking environmental action comes with a host of opportunities. In 2019, suppliers cut 563 MtCO₂e worth of emissions - equivalent to removing 119 million cars from the road for a year - and reported subsequent savings of over US\$20 billion.

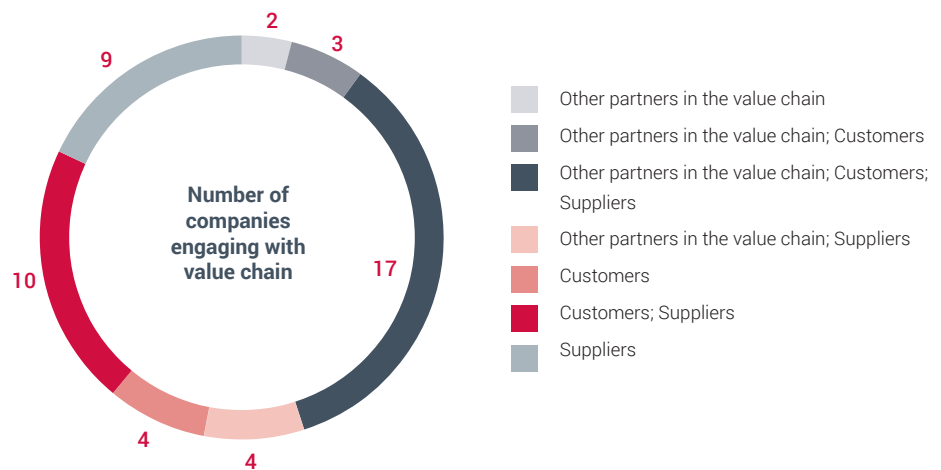
However, with only 29% of suppliers reporting an absolute decrease in 2019 emissions, it is clear purchasers and their suppliers must do much more to achieve a 1.5 degree world. Switching to renewable electricity is one of the fastest ways to reduce emissions. Renewable electricity currently makes up just 11% of suppliers’ energy mix. By increasing the amount of renewable electricity they source by 20 percentage points, suppliers have the power to cut global emissions by a gigaton.

To secure the decarbonisation pathway, it is important for companies to understand each stakeholder’s concerns about various environmental issues related to climate change mitigation and adaptation. These factors can then be incorporated in the company’s business strategy.

From the current Indian investor sample 49 of the 59 companies engage with their value-chain on climate-related issues, but only 35% engage with their customers, suppliers, as well as other partners in the value chain; while only 21% involve their customers and suppliers and the rest with other stakeholders.

Engagement with
value-chain on
climate-related issues





In dealing with value chain emissions, the main concern is compliance and onboarding, engagement incentivization and information collection. But focus is also placed on education/information sharing.

Climate change has gone from being just a corporate issue to becoming a part of critical political discussions. A company's approach must therefore include engagement with public policy

on climate-related issues so that it reaches a much broader and wider range of stakeholders.

Businesses can engage and communicate about their sustainable development, thus contributing towards the shaping of the climate policy. The most common strategy for this is direct engagement with policy makers, trade associations, and funding research organizations.

TATA Steel: Charting a green pathway

Tata Steel ranks fourth in CDP's 'Investor Report' for the Steel sector 2019. The only Indian steel company to officially support TCFD, Tata Steel supports the use of scenario analysis and aims to comprehensively cover that in next two years. Tata Steel is also one of the six steel companies globally to respond to CDP's water questionnaire.

The company is committed to responsibly managing their operations with continuous improvement in their value chain. The strategies and approach followed within the business have been closely aligned with **Tata Code of Conduct, Climate Change Policy, Worldsteel approach in response to Climate Change** and **UN Global Compact Principles**. Tata Steel is one of the four Worldsteel member companies to disclose the emission intensity in line with Worldsteel guidance methodology. The company has the most comprehensive emissions and energy disclosures including Scope 3 emissions data for 10 of the 11 reported categories. It is also recognised for involvement of climate related experienced professional for decision making and Corporate Social Responsibility & Sustainability committee and Safety, Health & Environment committee at board level. Tata Steel Ltd. has also been recognized as the 'Sustainability Champion' for two successive years in 2018 & 2019 by worldsteel association. Its plants at Ijmuiden and Kalinganagar features in World Economic Forum's global List of Lighthouse Network for leadership in applying Fourth Industrial Revolution technologies to drive financial and operational impact.

Tata Steel has developed and designed a new technology called 'Hlsarna', which is estimated to curb down at least 20% of CO₂ emissions during steel production and also produce high concentration of CO₂ which is ideal for immediate carbon capture without the expensive refining procedure. Hlsarna has completed five pilot runs and yet to be commercialised. The company aims to develop Green Hydrogen steel making cluster and looking forward with to convert carbon monoxide (by-product gas) to naphtha by CCU. Till date the company has installed 80,000 solar panels on factory roofs at the IJmuiden steelworks

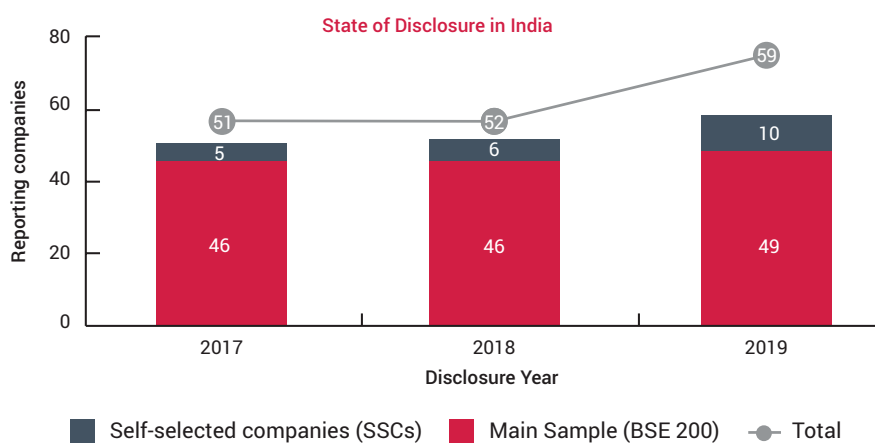
Tata Steel targets to become carbon neutral in their European operations by 2050 and in India has set a goal to achieve CO₂ emission intensity (of steelmaking) < 2 tCO₂/tcs by 2025.

EMISSIONS TREND AND VERIFICATION

India's corporate sector can play a crucial role in the country's NDCs commitment to **reduce its emission intensity by 33-35% by 2030** from the 2005 level

Given the increased focus on industrial GHG emissions, India's corporate sector can play a crucial role in the country's NDCs commitment to reduce its emission intensity by 33-35% by 2030 from the 2005 level. They have begun to understand the crucial role of MRV

(monitoring, reporting and verification) which we witness in the increasing number of companies reporting to CDP. In 2019, number of companies responding to CDP's request rose by over 13% to reach 59 compared to 52 in 2018.

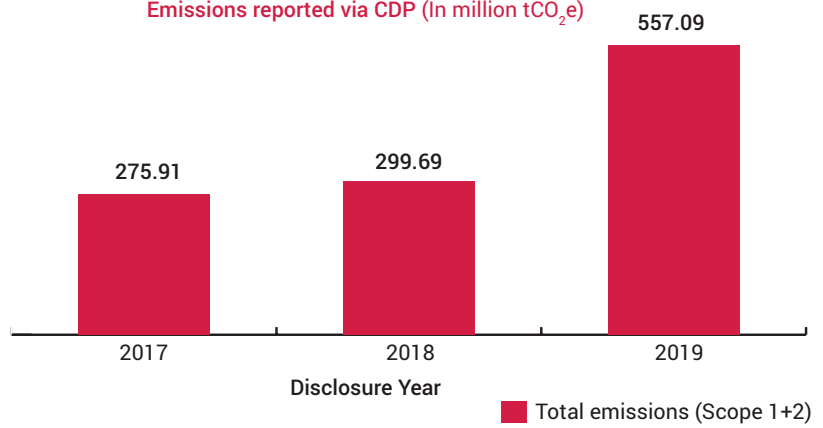




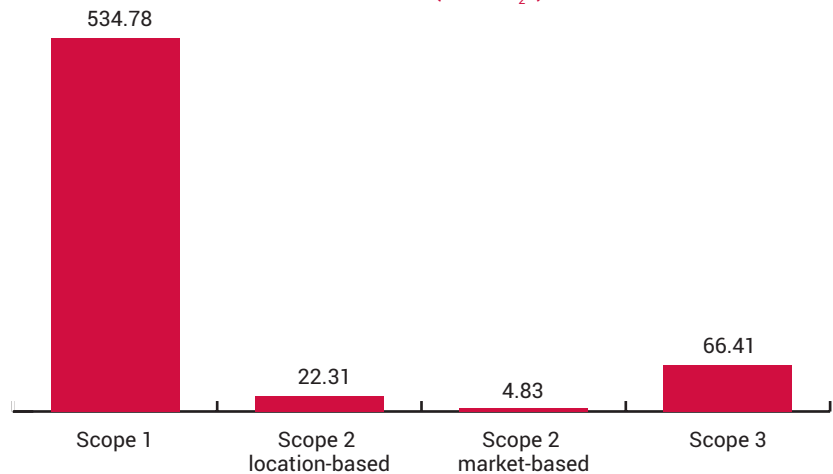
This year, companies have reported

557
MtCO₂e
of total (Scope 1+2
[location-based])
emissions

Emissions reported via CDP (In million tCO₂e)



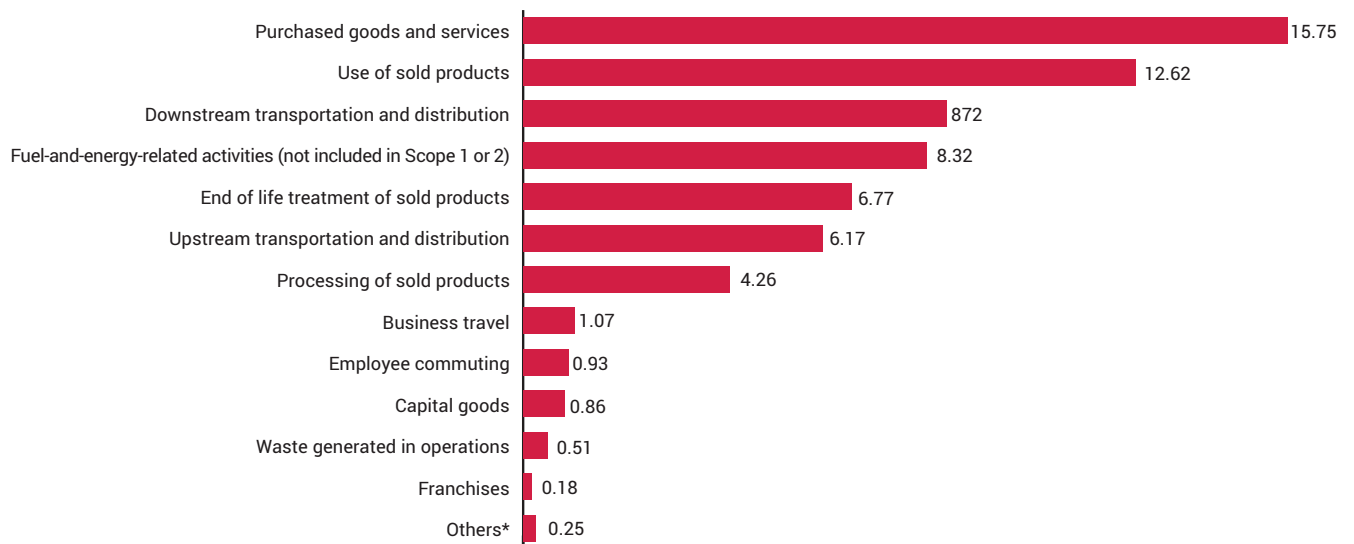
Emissions Data (in MtCO₂e)



In the CDP Climate Change disclosure program, companies disclose their direct and indirect emissions under different emissions categories. This year, companies have reported 557 MtCO₂e of total (Scope 1+2 [location-based]) emissions. This is a whopping 86% increase compared to last year as significant companies from high-emitting sectors such as thermal power generation and cement manufacture are coming forward to disclose their GHG emissions.

Companies have reported 66.41 MtCO₂e of Scope 3 emissions in 16 categories as shown in the graph. The maximum Scope 3 emissions i.e. 23.7%, are reported in Purchased Goods and Services category followed by 19% in Use of Sold Products. The sectoral analysis shows maximum emissions of 26.12 MtCO₂e being reported in the Metal smelting, refining & forming sector whereas Transportation Equipment sector stands second highest by reporting Scope 3 emissions of 23.10 MtCO₂e.

Emissions reported in Scope 3 Categories



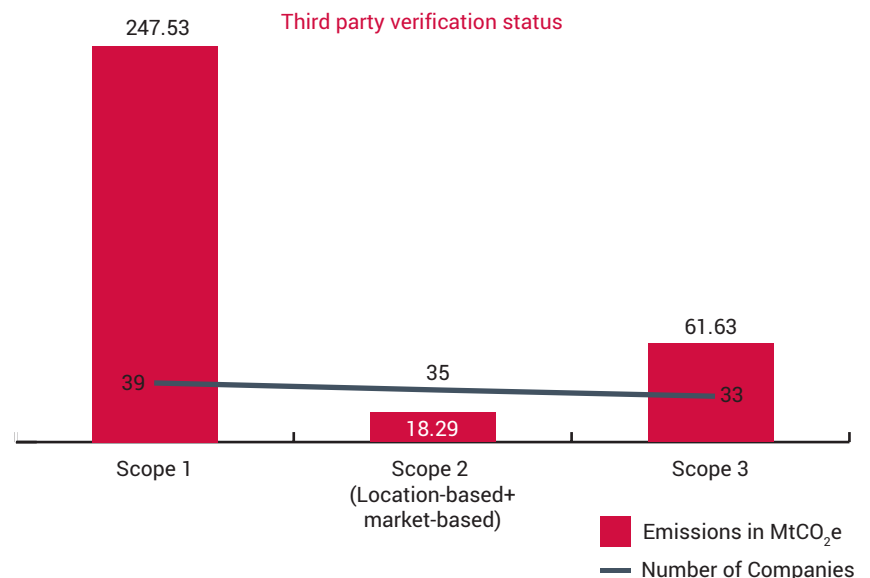
* Total Emissions of Upstream leased assets, Downstream leased assets, Investments and Other (upstream) categories

Emissions in MtCO₂e

23.7%
of Scope 3 emissions
are reported in
Purchased Goods and
Services category
followed by 19% in Use
of Sold Products

Third-party verification is an important component of emissions reporting and over the years, the number of companies undertaking this audit has increased. In 2019, only 56 companies have reported Scope 1 as well as Scope 2 emissions of which 39 companies have submitted third-party assurance for 100% of their Scope 1 emissions and 35 have submitted third-party assurance for 99.7% of their Scope 2 emissions.

Overall, 46% of the total reported Scope 1 emissions and 67% of the total reported Scope 2 emissions companies are verified by a third party. While 44 companies have reported their Scope 3 emissions, only 33 have verified emissions. An impressive large proportion -- 93% -- of these emissions have been verified.



Larsen & Toubro Infotech: Enabling digital sustainable solutions

The company leverages the power of digital sustainable solutions to enable global companies catalyze growth and climate action. For example, it helped a client digitize sustainable forestry operations by deploying internet of things (IoT), which not only transforms experiences in agribusiness, but also prevents revenue loss, artificial price suppression, biodiversity loss and impact on climate change.

Larsen & Toubro Infotech (LTI) has identified climate risks in its business operations and is on the path of being carbon neutral in the coming years while aligning to the Sustainable Development Goals (SDGs). The company is proactive in managing 'Business Disruption Risk' by a Business Continuity & Resilience (BC&R) program which has been aligned with applicable laws and regulations (global & national) relevant to industry standards like ISO 22301 and NIST (National Institute of Standards and Technology).

LTI has launched a 'Go Green' initiative in 2016 to sensitize its stakeholders towards the importance of ecological balance in environment as well as in their value chain. Introduction of Webex and 'Workplace platform' among employees have been initiated as an alternative to travelling for meetings to curb down carbon emissions, cost and time. A week in every month is also earmarked as Green Week where travel for business is restricted to curb emissions.

It is reported that LTI has taken several important steps in energy conservation such as, use of electronic sensors to optimize energy consumption, HVAC plant optimization, installation of lighting transformers and motion sensors, UPS replacements and optimization, hibernation of personal computers for saving energy and replacing other conventional equipment with new energy efficient equipment. Awareness drives to reduce, reuse and recycle resources in simple ways in daily lives are conducted among the employees. These steps have resulted in an annual recurring energy saving of 2,126 Mwh and reduced 3,807 tonnes of carbon dioxide. As reported to CDP, LTI campuses in Powai and Bengaluru have entered into Power Purchase Agreements (PPAs) with renewable energy agencies for sourcing solar energy. These two campuses have consumed 1,007.22 Mwh of solar energy in the reporting year i.e, FY 2017-18. LTI Headquarters in Powai is certified under US Green Building Council (USGBC) LEED Gold rated building and Bengaluru office has recently been certified as an IGBC Platinum rated Green Building, reflecting the company's commitment in this direction.

LTI has been among the fastest growing IT companies in India. This growth is underlined by the fact that the company is being able to decouple its operational growth from the carbon footprint, reducing its per capita energy consumption and GHG emissions. LTI has explicitly committed to pursuing a climate benign growth trajectory which will reinforce its position as a resource efficient and environment friendly organization.

TARGETS AND PERFORMANCE

Emission reduction targets and initiatives

Targets

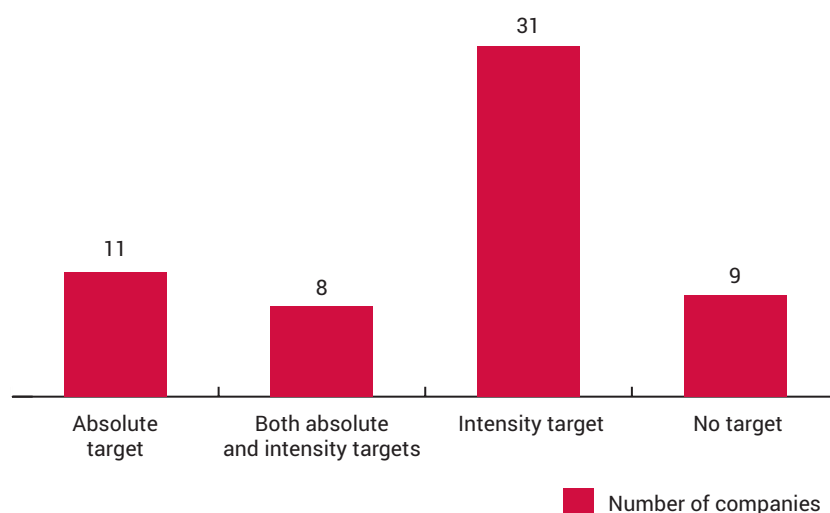
The 59 companies that responded to CDP undertake both absolute and intensity targets. In all, they reported 81 targets of which seven have been approved as science-based targets across four companies. Nine companies reported having no targets in place, but more than 60% plan to set a target over the next two years.

About 55% of the targets adopted by companies are short-term i.e. till 2020.

Those with a long-term perspective have mostly gone for intensity targets, with only 9% companies setting a target for 2031 and beyond.

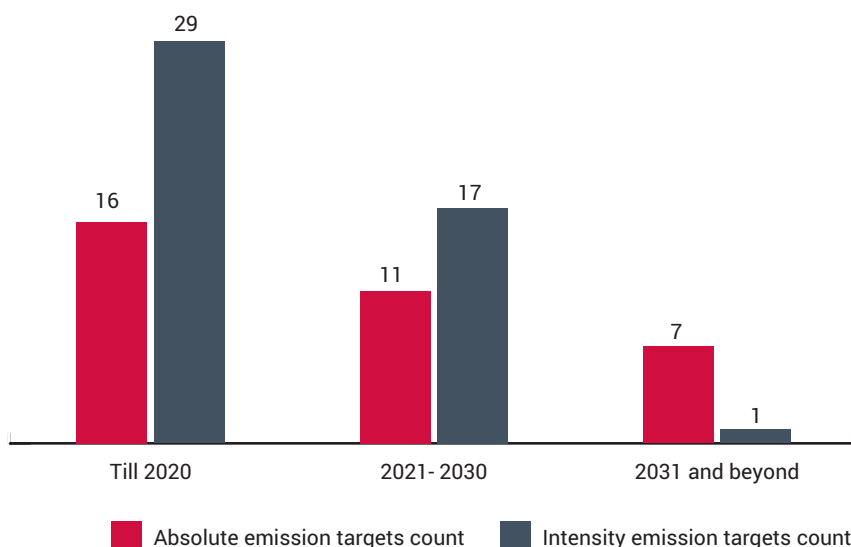
Apart from absolute and intensity targets and SBTs, the respondents claimed 81 other targets of which 30% companies have RE consumption targets, 29% have energy usage targets and 10% have energy productivity targets, amongst others.

GHG Emission Reduction Target Types



90% of the responding 59 companies had a total of 293 ERIs active within the reporting year

Types of targets based on time-frame of target year

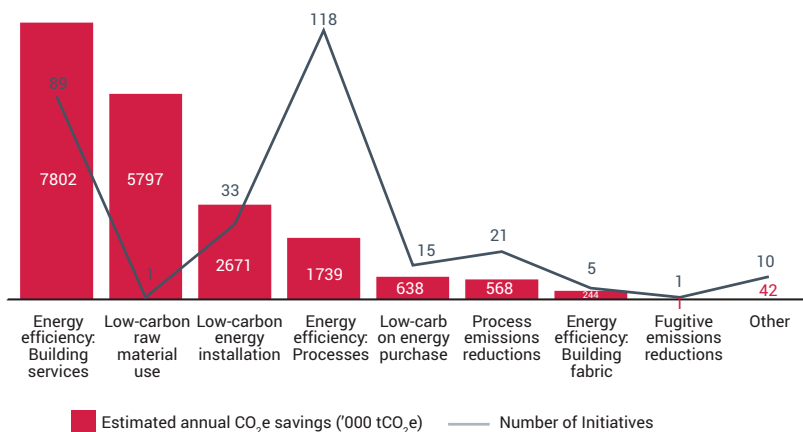


Initiatives

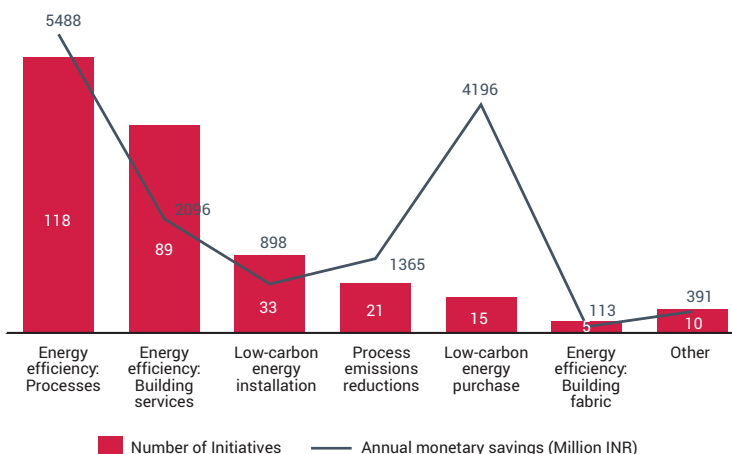
Upto 90% of the responding 59 companies had a total of 293 emission reduction initiatives (ERI) active within the reporting year. While energy-efficiency processes are still the most deployed ERI, it is energy efficiency-building services – low carbon raw

material-use and low carbon energy installation –which outweigh the former in their potential to save CO₂e emissions. The highest monetary savings accrued through energy-efficiency processes, followed by energy-efficiency in building services.

Emission Reduction Initiatives



Monetary Savings



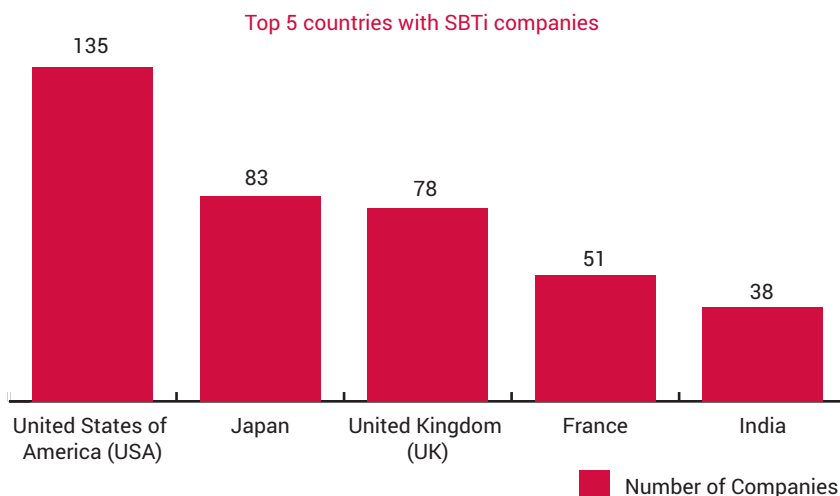
SCIENCE BASED TARGETS

What is a 'science-based target'?

Targets adopted by companies to reduce GHG emissions are considered "science-based" if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement – to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C. Science-based targets provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their GHG emissions.

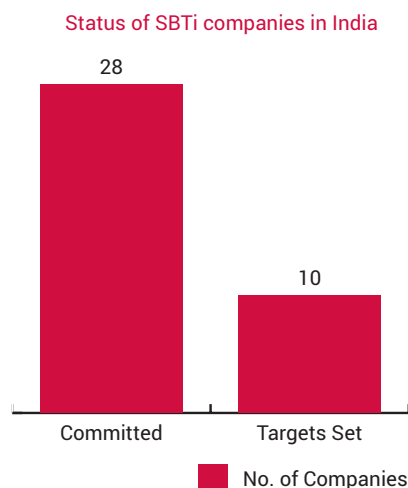
Indian companies have propelled India to the leadership group in planning urgent climate action. So much so, that at present, India is the fifth country and the first developing economy with

the maximum number of companies committing to SBTi. By December 2019, 38 companies have been committed to SBTi which is significant growth from 25 companies in 2018. Correspondingly, 10 companies have approved SBTs in 2019 growing from 4 companies in 2018.



There has been
↑ 23%
increase in Scope 1+2
emissions and
↑ 20%
increase in Scope 3
emissions covered by SBTi
companies this year as
compared to 2018

If all **59** CDP reporting companies reduce **27.5% of Scope 1+2** emissions by 2030 from a 2019 base year, they would be aligning their emission reduction targets to well-below 2°C, as per the latest climate science; thereby reducing emissions by **153.2 MtCO₂e**



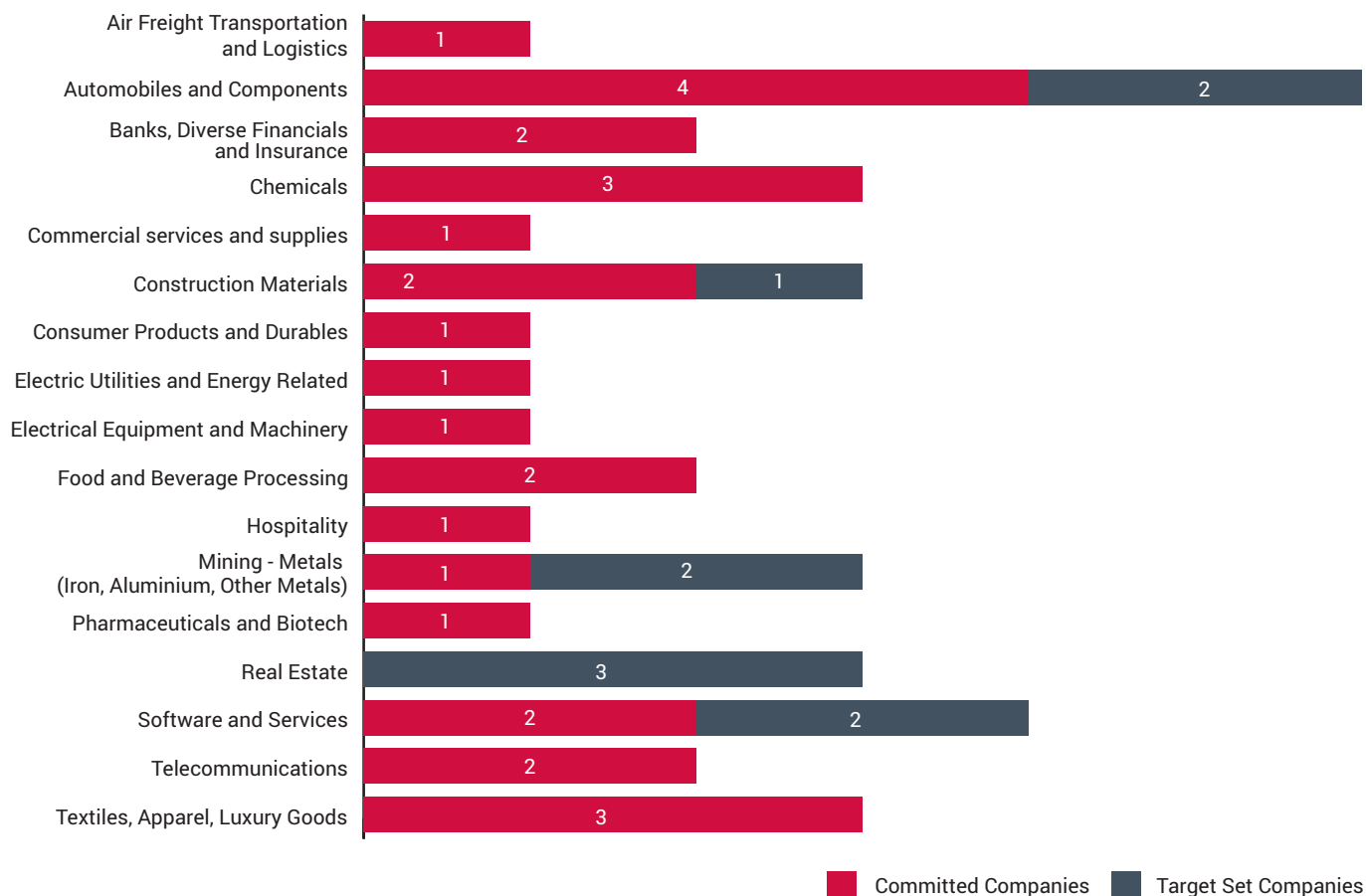
This shows the level of commitment of Indian companies in moving towards a low carbon economy is relentless across industrial sectors, with the maximum commitments from the Automobiles and Components sector. An important observation is that all the companies in the Real Estate sector have approved targets aligning with 1.5 Degree ambition.

Total carbon savings reported by SBTi companies in 2019 is **12.89 MtCO₂e** with maximum share of 51% reported from the Cement and Concrete sector (6.54 MtCO₂e) followed by 33% (4.36 MtCO₂e) from Media, Telecommunications & Data Center Services sector.

There has been an increase of 12.14 MtCO₂e of estimated annual carbon savings reported by SBTi companies in 2019 as compared to the last year.



Sectoral analysis of Indian SBTi companies



**Upto
177
companies have
committed to set
1.5°C-aligned
science-based
targets**

The above graph shows the Indian companies' sectoral snapshot highlighting the number of companies committing to the initiative vis a vis companies with set targets. An analysis was done for all the sectors under which the companies with set targets fall is shown in the table below.

data for the 20 companies in comparison with the total emissions reported by all 59 companies in the investor sample of 2019 is shown in the graph.

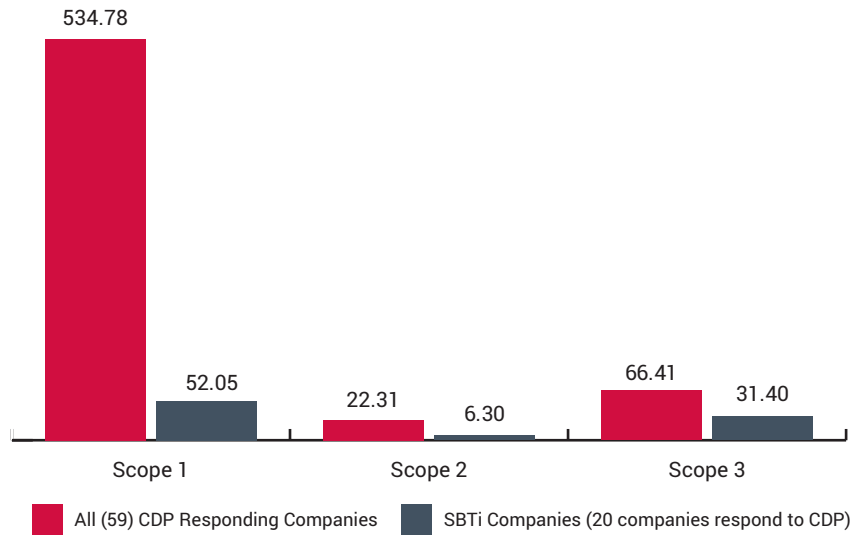
It is to be noted that these 20 companies have approximately 10%

SBTi GRI Sector	Average Base Year (Scope 1+2)	Average Target Year (Scope 1+2)	Maximum Target Qualification of Companies
Real Estate	2015	2032	Well-below 2C
Automobiles and Components	2017	2032	Well-below 2C
Construction Materials	2018	2030	2C
Metals (Iron, Aluminium, Other Metals)	2016	2026	2C
Software and Services	2014	2031	Well-below 2C

**Data as of 16th December 2019*

Out of the 38 SBTi committed companies, 20 companies have responded to CDP via the 2019 Climate Change investor disclosure program. The emissions breakdown

share of Scope 1, 23% share of Scope 2 (location-based) emissions and 47% share of Scope 3 emissions in the overall CDP reporting sample of 59 companies. There has been a 23% increase in (Scope 1+2) and



29

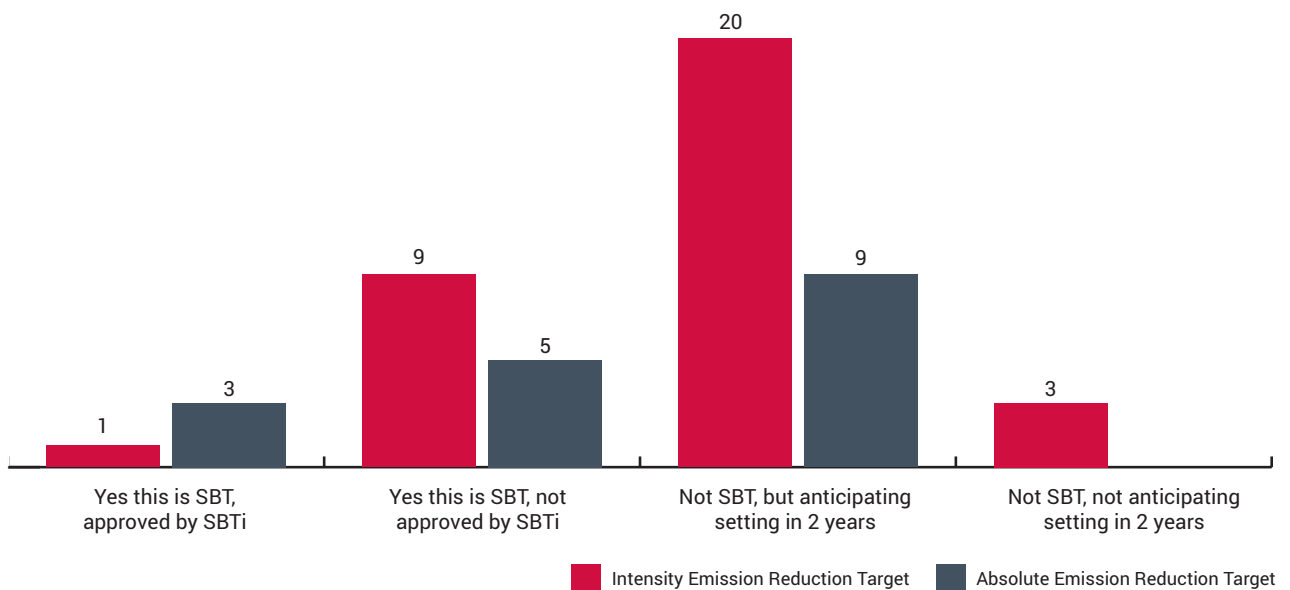
companies anticipate setting science-based emission reduction targets in the next two years

20% increase in Scope 3 emissions covered by SBTi companies this year as compared to 2018. This gives a clear indication that companies with significant carbon footprint are taking the necessary steps to limit the warming, but more companies need to step forward and commit to bold and ambitious climate initiatives such as the SBTi in order to help India achieve its NDCs and move towards a low carbon economy.

As part of achieving one of the targets under the NDCs, India has committed to reducing the emissions intensity of

GDP by 33%–35% by 2030 below 2005 levels. The potential emission reduction of companies taking action through various initiatives shows that companies can contribute in an effective way to achieve this target. CDP 2019 Climate Change data shows that 14 companies have absolute and/ or intensity targets based on science, but these have not been approved by the initiative yet. Also, there are 29 companies which anticipate setting science-based emission reduction targets in the next two years. This shows the potential of more companies to commit to the SBTi and get their targets validated by the initiative.

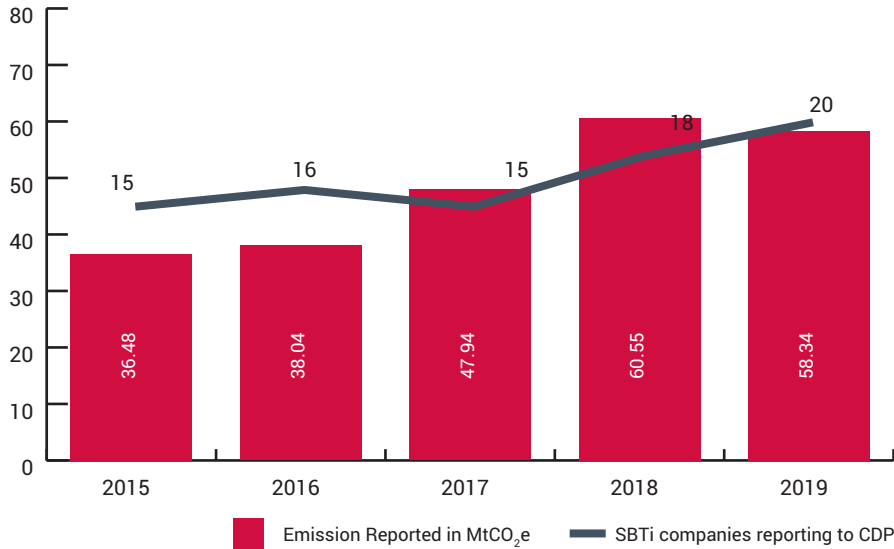
Status of Companies on SBTs vis-à-vis other Emission Reduction Targets



Growth in ambition over the years

CDPs five-year data shows a rising trend in Indian companies committing to SBTi with their reported emissions increasing

Comparison of Absolute Scope 1+2 emissions (MtCO₂e) for SBTi companies reporting to CDP



by almost 60%. It is encouraging to note that despite this increase there has been a slight drop in the emissions reported by SBTi companies in 2019 over the previous year. This is clearly due to emission reductions initiatives taken by the four companies which have their targets set under SBTi during the reporting period.

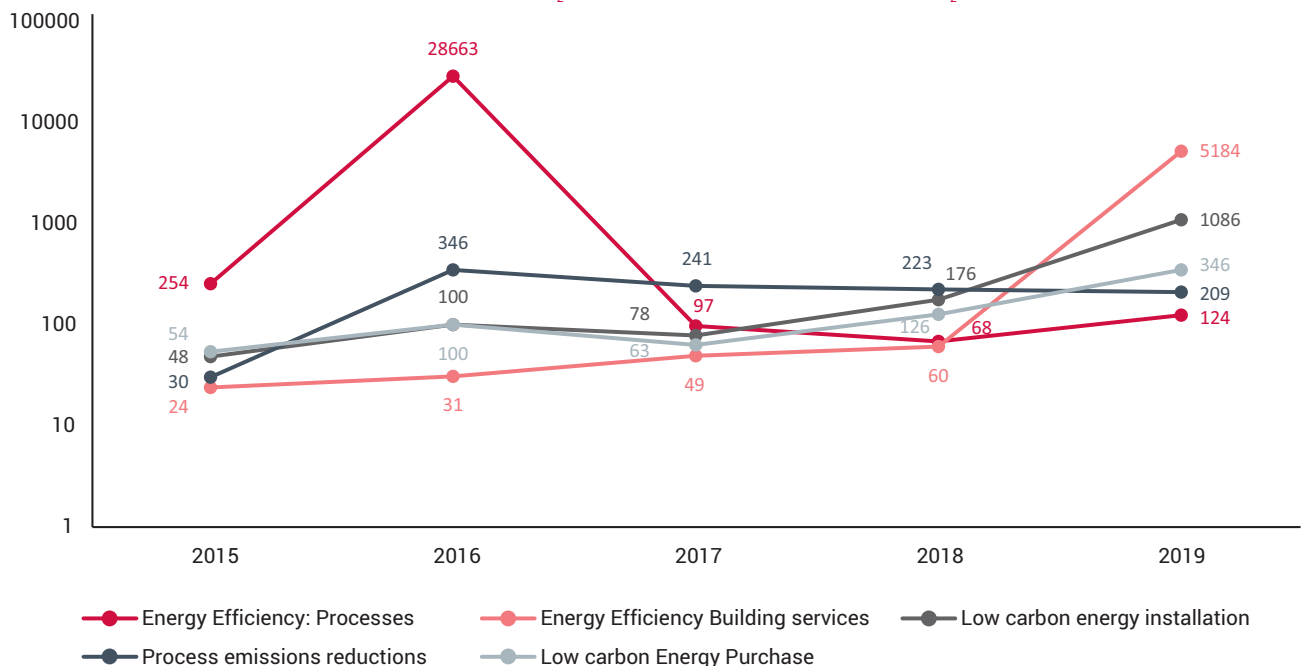
The below graph shows the estimated annual carbon savings of top five

emission reduction initiatives taken by companies reporting to CDP. It is evident that over the years, low carbon energy installation and low carbon purchases have gained momentum in reducing GHG emission with an increase in the number of SBTi committed companies implementing these initiatives.

Maximum carbon savings of 6.54 MtCO₂e have been reported from the Cement and Concrete sector followed by Media, Telecommunications & Data Center Services sector with 4.36 MtCO₂e. The Metal smelting, refining & forming sector has reported 70,422 tons CO₂e savings this year with a significant increase of 52,471 tCO₂e as compared to 2018. There has been an increase of 12.14 MtCO₂e of estimated annual carbon savings reported by SBTi companies in 2019 as compared to the last year.

It is noteworthy that the emission intensity (emissions per unit of revenue) of the cement and concrete sector has decreased by about 22% since 2017 owing to the increase in the number of emission reduction initiatives taken over the years. Data shared by the three reporting companies who are SBTi committed (Ambuja Cement, Dalmia Bharat and Shree Cement) shows that the sector is clearly ahead of the pack and underscores the proactive nature of this sector when it comes to emission reductions.

Estimated annual CO₂e savings of SBTi companies (in '000 tCO₂e)



Tata Chemicals is engaged in an energising transformation agenda built on the three pillars of Innovation, Sustainability and Digitisation. We embrace environment friendly technologies and business practices while tracking our carbon footprint and setting targets to reduce carbon emission. Setting Science based targets will help us transition towards growth which is in consonance with low carbon economy.

– R Mukundan
Managing Director & CEO
Tata Chemicals Limited

About SBTi

The Science Based Targets initiative champions science-based target setting as a powerful way of boosting companies' competitive advantage in the transition to the low-carbon economy.

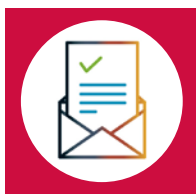
It is a collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), and the World-Wide Fund for Nature (WWF) and one of the We Mean Business Coalition commitments.

The initiative:

- Showcases companies that set science-based targets through **case studies, events and media** to highlight the increased innovation, reduced regulatory uncertainty, strengthened investor confidence and improved profitability and competitiveness generated by science-based target setting.
- Defines and promotes best practice in science-based target setting with the support of a **Technical Advisory Group**
- Offers **resources, workshops** and guidance to reduce barriers to adoption
- Independently assesses and approves companies' targets

Joining Call to Action

We look forward to companies taking action by committing to develop Science based Targets.



1. Commit



2. Develop Target



3. Submit target
for validation



4. Announce Target

Sustainability is a business issue. With consumption growing rapidly due to growing population and rising income, there is unprecedented strain on natural resources. SBTs are becoming a mainstream business practice - because more and more companies, like ours, are recognizing that the transition to a low-carbon economy is a huge business opportunity as well as the only way to secure sustainable prosperity. Following the Mahindra Challenge at Davos 2018, i.e. reaching 500 commitments to SBTi by September 2018, in a short span of two months 27 companies signed up and at present more than 500 companies have committed to SBTi. Taking on emission and carbon footprint reduction targets as per the SBT framework gives a sense that the organisation is on an ambitious and meaningful path to combat climate change.

– Anand Mahindra
Chairman
Mahindra Group

INTERNAL CARBON PRICE

20

Indian companies, both in Investor and Supply Chain program, put a price on carbon in 2019

TCFD recommends the application of ICP as a key metric in scenario analysis because it is forward-looking and can help organizations manage climate-related transition risks and opportunities. In addition to this, ICP is also a unique tool to help organizations create funds that can be used to invest in low carbon transition.

The 2018 Special Report from the Intergovernmental Panel on Climate Change (IPCC) specially emphasized the urgent need to bend the curve on global GHG emissions to avoid the worst impacts of climate change. As per the High-Level Commission on Carbon Prices, led by Nobel Laureate Joseph Stiglitz and Lord Nicholas Stern, meeting the world's agreed climate goals in the

most cost-effective way while fostering growth requires countries to set a strong carbon price, with the goal of reaching \$40-\$80 per tonne of CO₂ by 2020 and \$50-100 per tonne by 2030.

Where does ICP feature in these goals?

An ICP provides an organization with an informed assessment in decision making and an incentive to reallocate resources towards from high carbon activities to low-carbon ones such as energy efficiency improvements, emissions reductions, and renewable energy procurement. Applying a carbon cost to such investment decisions supports better returns on investment. It is also used in determining the business case for R&D investments necessary for new low-carbon products and services

Top reasons to price carbon:

1. It is a vital part of strategy to reduce emissions in an efficient way
2. It helps make informed decisions and incentivize low-cost abatement options
3. Useful preparatory tool for future government climate policies
4. Enables creation of fund for low carbon transition
5. Investors are increasingly supporting a price on carbon to assess their portfolio exposure

-- a priority for companies seeking to cut emissions from the manufacturing process and attracting new businesses from customers interested in low-carbon, low-cost solutions.

In future, explicit carbon taxes or similar schemes in the form of a carbon market are likely to be used as a mechanism to regulate global emissions. In order to help understand and quantify potential climate risk impacts, the TCFD recommends, where relevant, disclosing ICP.

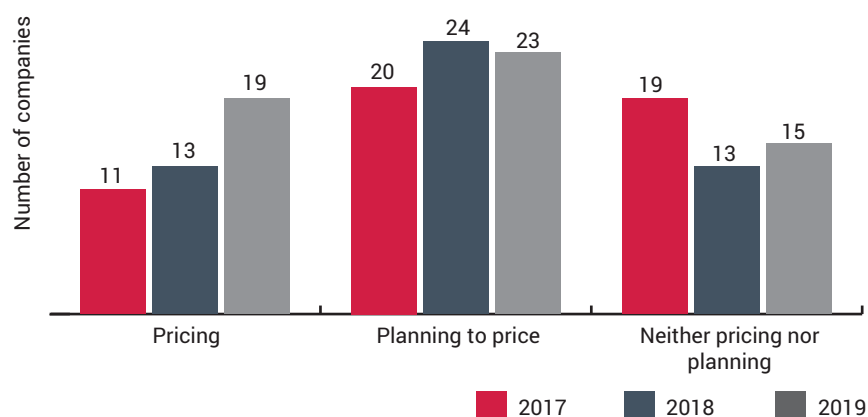
As a growing economy which is among the most vulnerable to the ravages of climate change, India needs to pay sustained attention to arresting this issue. China, fast emerging as the global leader on environment and climate matters, saw a near doubling of corporate action on carbon pricing after it announced its ETS. The Indian market awaits a similar signal from the government. This will further spur the corporate sector to internalize the idea of carbon risk and prepare to aggressively compete in a carbon-constrained world. After all, internal carbon price is a mechanism which can be adopted faster by corporates than by governments. With more certainty around Article 6 of Paris Agreement, carbon pricing will become more mainstream in coming years.

Since 2013, CDP has been asking companies to disclose their practice of using an ICP. In 2019, 19 companies reported putting a price on carbon, an increase of 46% since 2018. Upto 23 companies said they plan to go in for carbon pricing in next two years. If we add supply chain companies to these numbers, we find that 20 companies are already pricing carbon and 31 are planning to do so in 2019.

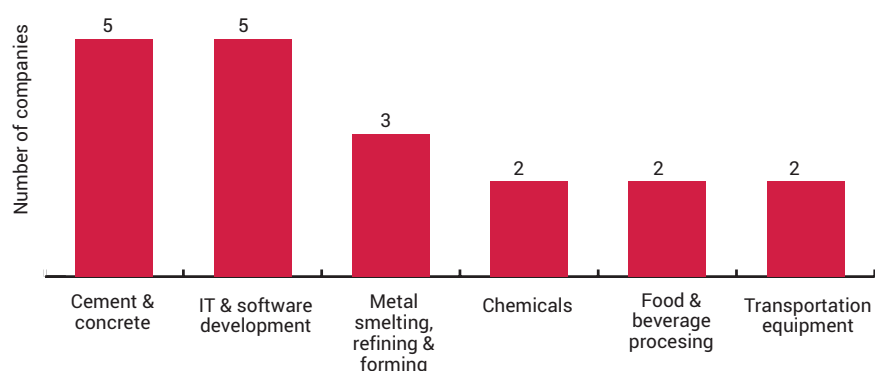
If we look at the sector-wise distribution of companies using ICP, we find two high-emission intensive sectors, Cement and Concrete and IT, dominating. This is also well reflective of the fact that the Cement and Concrete sector has to drastically reduce their emissions to meet the Paris agreement. It has been estimated that if the cement industry were a country, it would be the third largest emitter in the world. Using carbon pricing for innovation, investment and competitiveness is one of the key instruments this industry can use to usher in low carbon transition.

The carbon pricing scenario with the IT companies in India might also follow from their commitment to SBT calling for a reduction in emissions in line with the 1.5-degree scenario, with ICP incentivizing emission reductions, change in employee behavior, R&D and purchases and value chain.

Internal carbon price trends in India

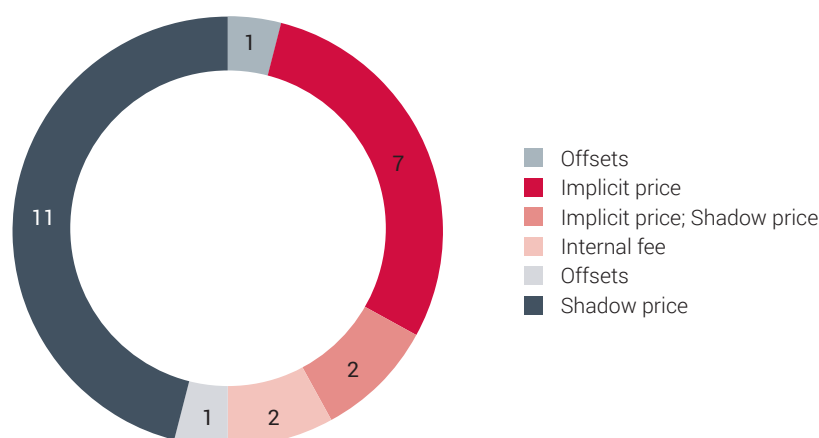


Sector wise distribution of companies pricing carbon



Among the types of carbon pricing, shadow price continues to dominate. GHG emissions are global externalities and scenarios for economic analysis of a project can be done both with and

without the shadow price of carbon. However, analysis with the shadow price of carbon reflects the global impacts of a project considering climate change, GHG emissions and carbon constraint scenarios.



Internal carbon prices of Indian companies in 2019

Company name	Price/tonne of CO ₂ (₹)	Price/tonne of CO ₂ (\$)
ACC	3313	47.33
Ambuja Cements	2103.6	30.74
Creative Group of Industries	private	private
Dalmia Bharat Ltd	private	private
Godrej Consumer Products	700	10
Godrej Industries	689.71	10
Hindustan Zinc*	1118.46	16.33
Infosys Limited*	976.125	14.25
Mahindra & Mahindra	664	10
Mahindra Sanyo Special Steel Pvt. Ltd*	752.02	10.98
Mindtree Ltd	private	private
Shree Cement	private	private
Tata Chemicals*	1370	20
Tata Consultancy Services*	1131	16.51
Tata Global Beverages*	315	4.60
Tata Motors	910	14
Tata Steel	975-2210	15-34
Tech Mahindra*	685	10
Ultratech Cement*	680	9.93
Wipro	7786	120

* Since these companies did not provide a conversion rate, an average exchange rate i.e. \$1 = ₹68.5 has been used



RENEWABLE ENERGY USE: THE SIGN OF A STRONG CORPORATE

In 2019, the **59** responding companies in India consumed a total of **95 Terra Watt hours (TWh) electricity** in their operations, of which **5%** (4.4 TWh) came from Renewable Energy (RE) sources. By giving companies the opportunity to challenge themselves and benchmark their performance against their peers, RE targets have become a tool to develop strong corporate leadership.

In 2019, **23 companies** from India reported RE targets, a 44% growth over 2018. Majority of companies have

reported RE consumption targets. This includes three companies¹⁷ (Dalmia Cement, Infosys Limited, and Tata Motors) that have adopted 100% RE consumption targets and joined the RE100 initiative. These companies consumed 2.2 TWh of electricity in 2019, of which 17% came from renewables. Overall, 23 companies with RE targets have reported **15 TWh** of electricity consumption, of which **9%** came from renewables.

However, a more rapid adoption by corporates can send a necessary market signal. In 2019, companies

Led by The Climate Group in partnership with CDP, RE100 is a collaborative initiative bringing together the world's most influential businesses committed to 100% renewable power. Renewables are a smart business decision, providing greater control over energy costs while helping companies deliver on emission reduction goals. RE100 members, including Global Fortune 500 companies, have a total revenue of over US\$5.4 trillion and operate in a diverse range of sectors – from information technology to automobile manufacturing. Together, they send a powerful signal to policymakers and investors to accelerate the transition to a clean economy.

There are 5 companies headquartered in India that have committed to the RE100 initiative. These are Dalmia Bharat Ltd, Infosys Ltd., Mahindra Holidays & Resorts India Ltd., Tata Motors Ltd, and Hatsun Agro Product Ltd.

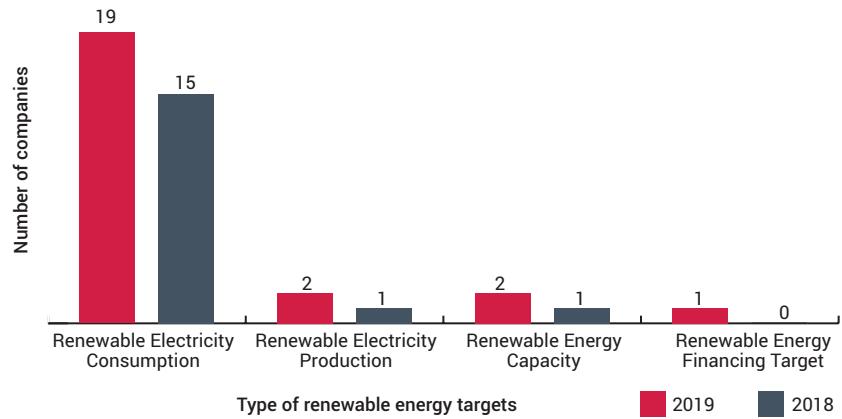
Visit RE100.org and follow #RE100 on Twitter.



59

responding companies in India consumed a total of 95 Terra Watt hours (TWh) electricity

Renewable Energy Targets



committed to the RE100 initiative grew by over a third, surpassing the 200-member milestone. If they were a country, RE100 members would be the 21st largest electricity consumer in the world. Interestingly, 44% of new joiners to RE100 in 2019 from across the Asia Pacific.

More than half the responding companies have reported that 0-10% of their **total operational spend was on energy** (electricity, fuel, etc.). Operational spend on energy is a strong indicator for a company to investigate opportunities to reduce costs while ensuring emission reductions through the adoption of low-carbon energy options. About **32 companies have identified energy-related opportunities** in their direct operations and four in their supply chain. A majority of these companies (85%) have estimated opportunities worth Rs **285 billion** in the use of **low-carbon sources of energy**.

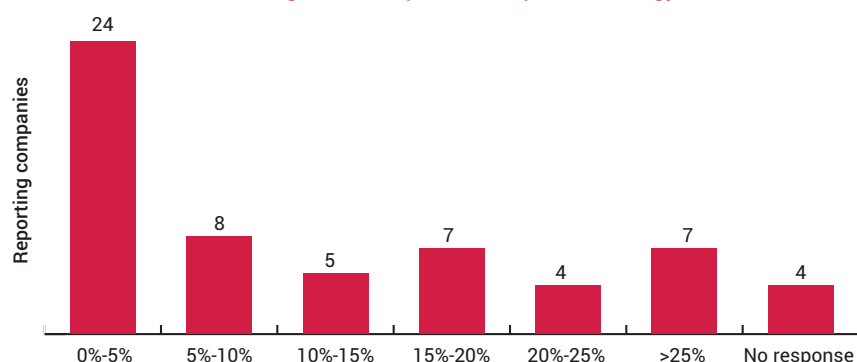
Renewable electricity sourcing helps companies reduce expenditures on electricity while having long-term visibility on the cost of electricity.

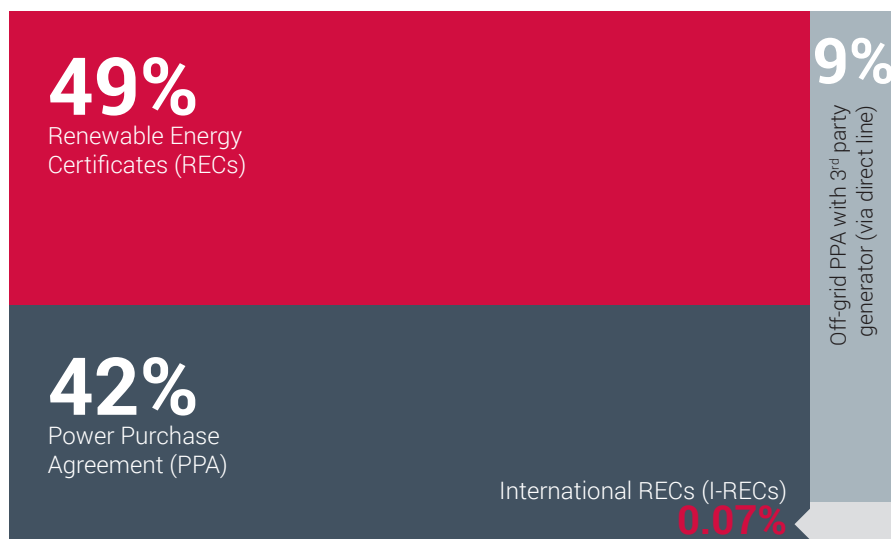
Companies can source renewable electricity at a **15 to 40%¹⁸** discount on industrial electricity tariffs in India which translates into significant cost savings on the energy budget of the company. This is also evident from the data reported to CDP by 32 companies that have implemented emission reduction initiatives in the reporting year, focussing on low- carbon energy installation and low-carbon energy purchase. These companies have estimated **annual carbon savings of 3.3 million tCO₂ and Rs 5 billion of annual monetary savings**.

Companies from Materials sector have reported the highest volume of RE consumption (67%), followed by Services, Biotech, Health care & Pharma and Manufacturing. They together represent 87% of total renewable electricity reported in 2019. However, the share of RE in total electricity consumption is higher in sectors like Transportation services, Hospitality and Biotech, Health care & Pharma.

A detailed breakdown shows that Renewable Electricity Certificates

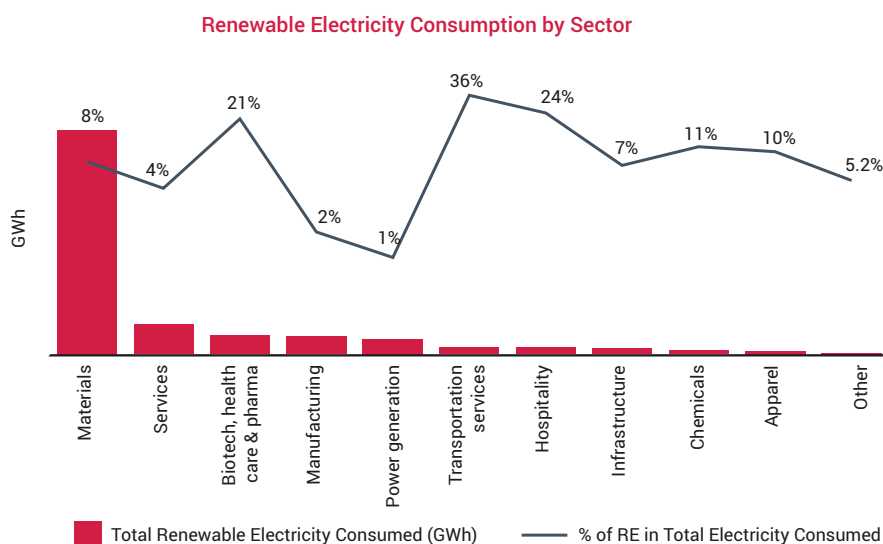
Percentage of total operational spend on energy





(RECs) are the most preferred sourcing option among companies followed by Power Purchase Agreement (PPA). A majority of companies have procured RECs to comply with the State Renewable Energy Purchase Obligations

(RPO targets). Upto 29 companies have reported 1.1 TWh of total renewable electricity consumption via PPA (on-grid and off-grid) which has grown by 80% since 2018.





WHY WATER SECURITY MAKES SOUND BUSINESS SENSE

India ranked 13th on Aqueduct's list of extremely highly water-stressed countries and has more than three times the combined population of the other 16 countries in this category¹⁹. This vital but rapidly diminishing resource is adding to increased conflict among communities and various stakeholders including businesses that require water to produce their goods and services. In many regions, a stable supply of good-quality water can no longer be relied on by companies to grow their business. Water security is thus essential to protecting the bottom line and meeting our global water goal - SDG6.

Responding to CDP's water program helps companies to understand and undertake better water management through not only regularly monitoring and accounting but also undertaking comprehensive risk assessments and assessing how water issues could impact financial performance. Its water scoring methodology, the Water Security questionnaire, helps companies drive improvements in their water management and enables benchmarking against leading practices on key parameters -- water dependence and water accounting metrics; value

chain engagement activities; business impacts; risk assessment procedures; risks and opportunities; facility water accounting; water governance and business strategy; targets and linkages with other environmental issues, for example.

CDP's water program motivates companies to disclose and reduce their environmental impacts using the power of their investors and customers. The data CDP collects help influential decision makers to reduce risk, capitalize on opportunities and drive action towards a more sustainable world.²⁰ "CDP has built the world's largest coalition of non-state actors working to deliver a water secure future," notes Cate Lamb, CDP's global director of water security.

Water security risks

According to CDP's 2018 Global Water Report, with 19% of water withdrawals coming from industry, and a further 70% from agricultural supply chains, companies have a massive role to play in meeting the global water goal - SDG6. Significant progress will rely on

12/15

(80%) of the responding companies also reported exposure to water-related risks which may have a substantial financial or strategic impact on their businesses

robust data on the current landscape and what needs to change to ensure environmental sustainability on water.

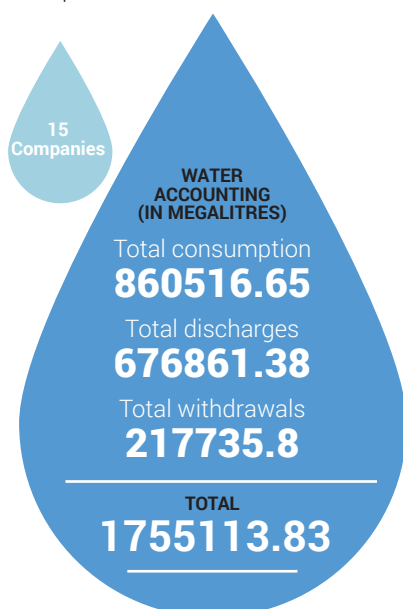
Research shows that just in India, by 2030, there will be a projected 50% gap between the demand for and supply of water. There is thus a need to take a longer-term perspective on water security.

The private sector should act on its water security because the price of non-action is high. The effects of water scarcity on businesses are already visible. Disruptions in business operations, unsustainable supply chains and increased risks in value chains will end up shifting consumer demands. The only businesses that will survive are those that adapt to Climate Change. ²¹

Consider this comparison: In 2019, 15 responding companies withdrew, consumed and discharged 217735.8 megalitres, 860516.65 megalitres and 676861.38 megalitres of water respectively. But in 2018, these figures stood at 202,740 megaliters, 185,781 megaliters and 98,008 megaliters respectively for nine responding companies.

Most companies try to reduce their water consumption through recycling and reusing. But the above figures prove that despite these efforts, the demand for water in industrial activities is rising.

Graphic below shows a summary of the water accounting of the 15 reporting companies.

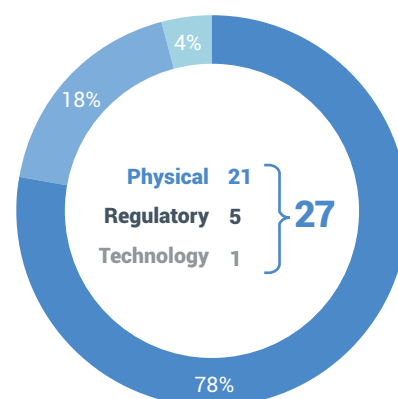


The number of companies globally reporting to CDP has increased from 2113 in 2018 to 2433 in 2019. In India, the numbers increased from nine in 2018 to 15 in 2019.

In 2019, the highest number of Indian companies responding on Water Questionnaire were from the metals and mining sector. In these sectors, water is a critical component in resource extraction, raw material processing and production. It is commendable that reporting companies are disclosing their water usage and management methods as a best practice.

Twelve out of 15 (80%) of the responding companies also reported exposure to water-related risks which may have a substantial financial or strategic impact on their businesses. Only four companies were able to provide a single figure estimate for a potential financial impact of around 15,000 million INR, while two companies provided a range of the potential financial impact of around 800 million INR to 2600 million INR.

Type of water security risks identified by companies



Physical risks include droughts, flooding, increased water scarcity and increased water stress, and so on.

Interestingly, this year the physical risk that could potentially have the highest financial impact is due to severe weather events. Regulatory risks involved regulation of discharge of water, Tighter Regulatory standards, Higher Water prices, Mandatory recycling or process standards, etc.

Physical Risks

(Potential financial impact in million INR)



Drought
887-3028



Increased water stress
2066



Severe weather events
8450



Increased water scarcity
4353



Seasonal supply variability/inter annual variability
2



Water availability from other sources
31

Regulatory risks

- Limited or no river basin/catchment management
- Mandatory water efficiency, conservation, recycling or process standards

Potential financial impact in million INR

1

390

Technology risks

- Transitioning to water intensive, low carbon energy sources

Potential financial impact in million INR

1

In addition to impact in direct operations, companies were also asked to assess their water risks in their value chain. Companies reported more physical risks than regulatory or technology risks. Only two companies Mahindra & Mahindra and Hindustan Zinc Ltd. were able to estimate in single figure the potential financial impact of 12242 million INR in their value chain due to water security issues.

Assessment of impacts also required the lens of timeframes and magnitude and the chart below represents the number of organisations and their estimated timeframe for realization of substantial financial and strategic impacts on business and the magnitude of potential financial impact.

Number of companies and their time-frame of strategic water planning

2

Long term
(>6 years)

5

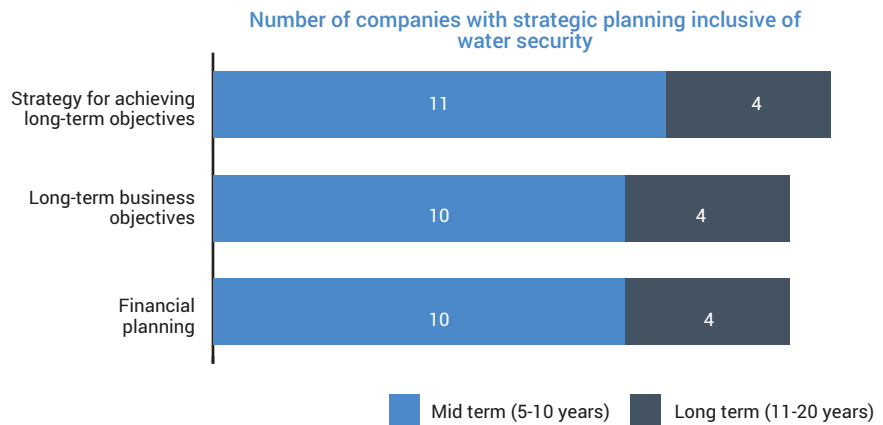
Medium term
(4 to 6 years)

19

Short term
(immediate-3 years)

Business strategy inclusive of water security

Companies are also looking into medium and long-term strategies on water issues into their business plans -- including Long-term business objectives and Financial planning). Companies prefer mid-term planning (5-10 years) to long-term planning (11-15 years or 16-20 years). This doesn't come as a surprise as water effects are felt locally and can be short-term in nature, requiring more immediate strategic planning. While 15 companies have integrated water-related issues in their strategy for achieving long-term, only 14 companies have considered it in their financial planning and long-term business objectives.



Reporting companies are not only measuring and monitoring their water usage, risks and impacts but are also employing good management methods

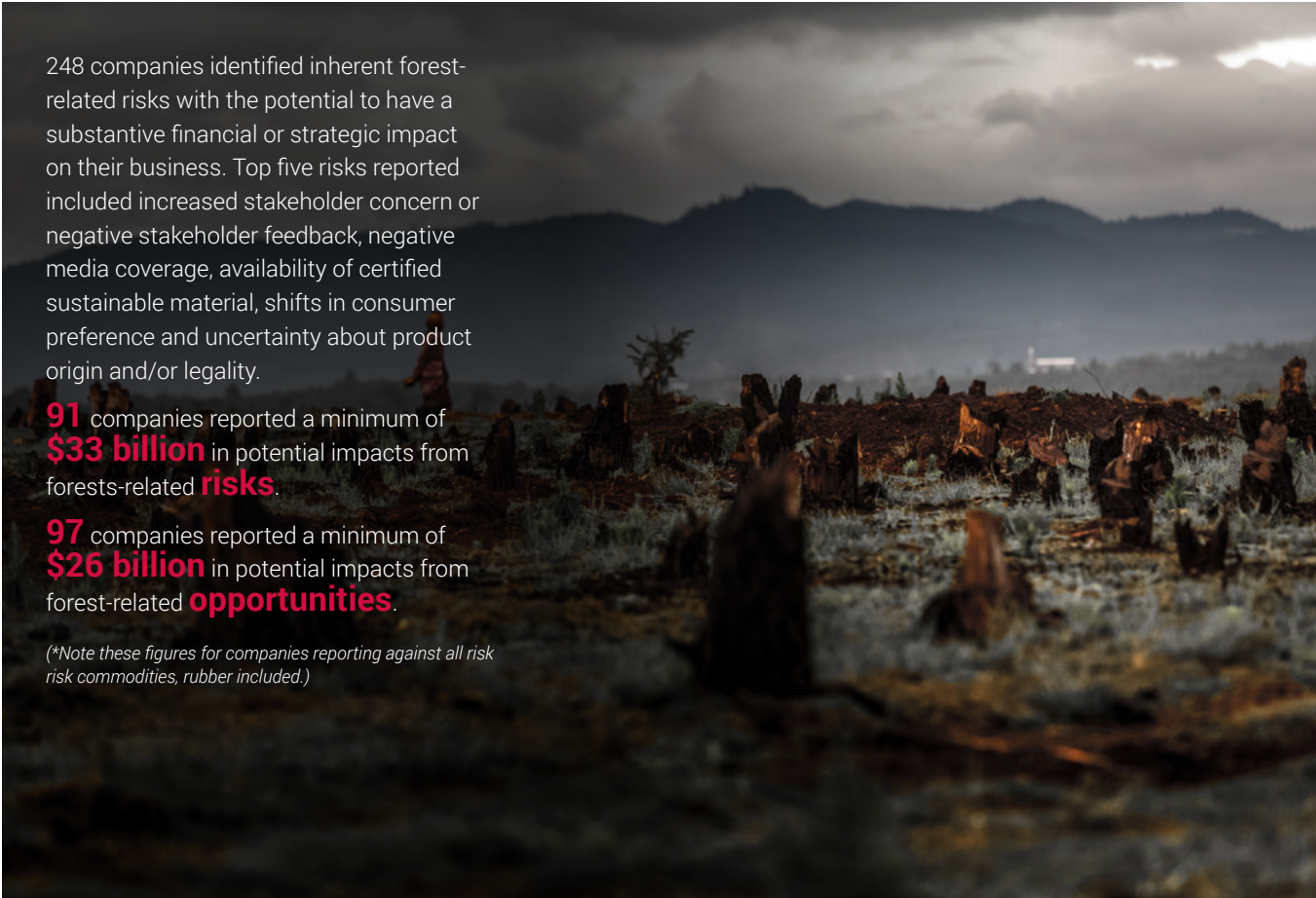
to enable water security. The table below shows that they are ticking the right boxes in this respect.

Companies	Board level oversight	Water targets and goals	Documented Water Policies	Scenario Analysis	Internal Price on Water	Verification of Water information	Value Chain Engagement
Adani Ports & Special Economic Zone	✓	✓					
Ambuja Cements	✓	✓	✓	✓	✓	✓	✓
Dr. Reddy's Laboratories	✓	✓	✓	✓			✓
Hindustan Zinc	✓	✓	✓	✓			✓
Indian Hotels Co. Ltd.	✓	✓	✓				
JK Tyres & Industries	✓	✓	✓				
Jubilant Life Sciences Ltd.	✓	✓	✓	✓		✓	✓
Mahindra & Mahindra	✓	✓	✓	✓		✓	✓
Mahindra Sanyo	✓	✓	✓			✓	✓
Special Steel Pvt. Ltd.	✓	✓	✓			✓	✓
Marico	✓	✓					✓
Piramal Enterprises	✓	✓	✓	✓			✓
Tata Chemicals	✓	✓	✓			✓	
Tata Steel	✓	✓	✓	✓	✓	✓	✓
Tech Mahindra	✓	✓	✓	✓		✓	✓
ZCL Chemicals	✓	✓	✓				

WHY FORESTS

Ending deforestation is critical to addressing the climate crisis. Even with all other anthropogenic emissions phased out, 'business as usual'²² deforestation alone could still drive global heating above 2C by 2100.²³ Conversely, halting deforestation and allowing restoration and recovery of degraded forests can contribute up to 30%²⁴ of global mitigation potential.

The single largest cause of deforestation and forests degradation globally is commercial agriculture to produce commodities such as cattle products, palm oil, soy and timber products. The unsustainable production and supply chains of these commodities present significant business risks and negative environmental impacts on land, water, biodiversity and climate change.



248 companies identified inherent forest-related risks with the potential to have a substantive financial or strategic impact on their business. Top five risks reported included increased stakeholder concern or negative stakeholder feedback, negative media coverage, availability of certified sustainable material, shifts in consumer preference and uncertainty about product origin and/or legality.

91 companies reported a minimum of **\$33 billion** in potential impacts from forests-related **risks**.

97 companies reported a minimum of **\$26 billion** in potential impacts from forest-related **opportunities**.

*(*Note these figures for companies reporting against all risk risk commodities, rubber included.)*

Acting on behalf of over **525** investors, that represent **US\$96** trillion in assets, and **14** large purchasing companies, CDP Forests provides a framework of action for companies to measure and manage forest-related risks and opportunities and transparently report on progress. In 2019, **543** companies from **46** countries responded to CDP's forests questionnaire. **Starkly, no Indian companies did so.**

In comparison, a total of 77 companies from other major emerging economies i.e. Brazil, Russia, China, and South Africa responded to CDP's forests questionnaire. This can indicate

a missed opportunity for Indian companies. As the largest global buyer of palm oil, Indian market is exposed to business risks associated with deforestation. On the other hand, India wields significant influence on the palm oil sector and can plan an important role in accelerating existing trends and scaling sustainable solutions. By not measuring and reporting their forests-related risks and opportunities, Indian companies might face a competitive disadvantage in the global market and face adverse effects of deforestation and climate change on their supply chains in the long term.

Call to disclosure and action

Removing deforestation from commodity supply chains is a journey. CDP calls on Indian companies to take the first step and begin measuring their forests-related risks and opportunities and report on their progress to investors, customers and other stakeholders. To reduce the negative impacts of forest risk commodities imported and domestically produced, companies need to assess their supply chain exposure to deforestation. Investors, customers and other stakeholders are calling Indian companies to join CDP's Forest program, report meaningful data to track progress to and reap the opportunities associated with securing sustainably produced commodities in the long term.

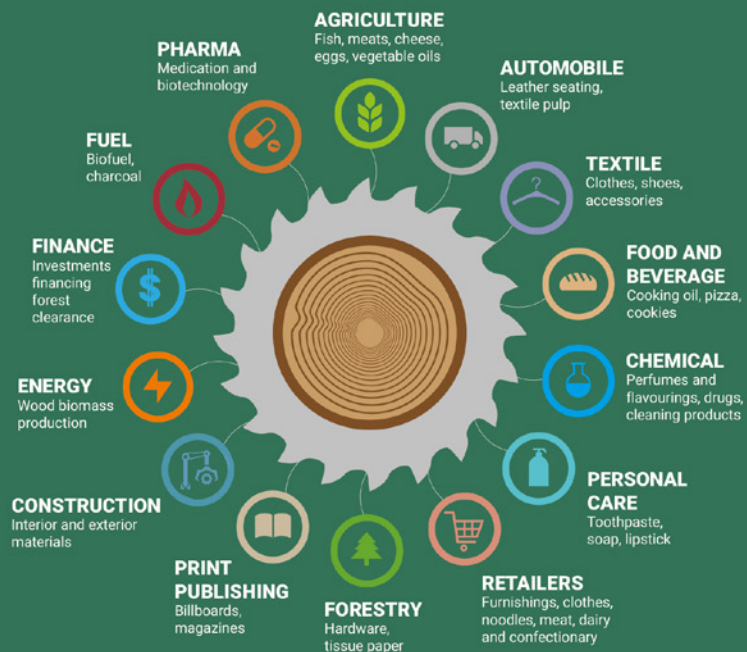
SECTORS DRIVING DEFORESTATION

x30

30 football fields of rainforest are lost every minute

40%

40% of tropical deforestation is driven by production and trade of just four commodities: **CATTLE, PALM OIL, TIMBER and SOY**



CITIES, STATES AND REGIONS

12

cities responded and made climate commitments

4

states responded to CDP States and Regions program

Cities

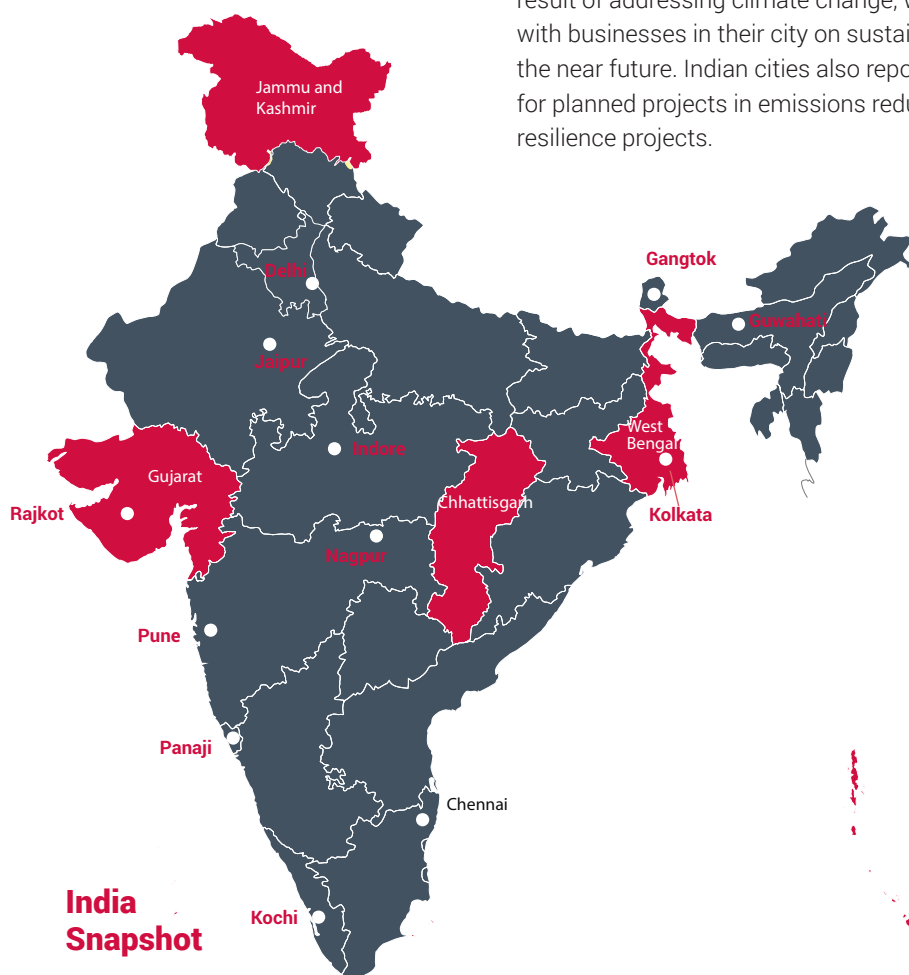
In 2019, over 850 cities from over 90 countries disclosed local climate change impacts and action through CDP. This includes 13 cities in India – almost three times more than those that disclosed in 2018.

Approximately half of disclosing Indian cities have identified opportunities as a result of addressing climate change, with four cities reporting that they collaborate with businesses in their city on sustainability projects and two more intending to in the near future. Indian cities also reported that they are seeking to attract financing for planned projects in emissions reduction, water management, adaptation and resilience projects.

States and regions

In 2019, 124 state and regional governments from 35 countries disclosed their climate action – an increase of 182% since 2015. They represent 669 million people and 20% of the global economy.

In the short-term, disclosing state and regional governments are more ambitious than their national counterparts, but more must be done to achieve the required emission reductions to limit global warming to 1.5°C above pre-industrial levels.



Endnotes

- 1 <https://theinvestoragenda.org/wp-content/uploads/2019/12/191201-GISGCC-FINAL-for-COP25.pdf>
- 2 <https://climateactiontracker.org/global/cat-thermometer/>
- 3 <https://www.worldbank.org/en/news/press-release/2018/06/28/climate-change-depress-living-standards-india-says-new-world-bank-report>
- 4 <https://www.worldbank.org/en/news/press-release/2018/06/28/climate-change-depress-living-standards-india-says-new-world-bank-report>
- 5 <https://www.germanwatch.org/en/17307>
- 6 <https://www.wemeanbusiness-coalition.org/press-release/1-5c-future/>
- 7 <https://news.un.org/en/story/2019/12/1053231>
- 8 https://www.un.org/en/climatechange/assets/pdf/release_industry_transition.pdf
- 9 <http://www.ghgplatform-india.org/industry-sector>
- 10 India's second Biennial Update Report to the UNFCCC, pg 108, <https://unfccc.int/sites/default/files/resource/INDIA%20SECOND%20BUR%20High%20Res.pdf>
- 11 <https://www.teriin.org/sites/default/files/2019-10/industrytransitionpaper.pdf>
- 12 Corporate climate action in support of NDCs, <https://6fef-cbb86e61af1b2fc4-c70d8ead-6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/comfy/cms/files/files/000/002/874/original/GBT-brochure.pdf>
- 13 <https://www.teriin.org/article/climate-action-in-industries-need-be-frontrunners-low-carbon-future>
- 14 <https://www.cdp.net/en/research/global-reports/global-climate-change-report-2018/climate-report-risks-and-opportunities>
- 15 <https://www.bloomberg.com/news/articles/2019-06-04/companies-see-1-trillion-in-climate-risk-but-more-in-potential-reward>
- 16 <https://www.cdp.net/en/research/global-reports/changing-the-chain>
- 17 There are five India headquartered companies committed to RE100 initiative. However, three of them have reported to CDP's climate change disclosure program 2019.
- 18 WBCSD's report on PPAs in India: Market & Policy Update for 2019
- 19 India Today (2019) Available at: <https://www.indiatoday.in/education-today/gk-current-affairs/story/india-extremely-high-water-stress-water-scarcity-report-1578326-2019-08-07>
- 20 Yoshima Yoshida (2017). Available at: https://thewaternetwork.com/_/integrated-water-resource-management-iwrm/article-FfV/water-cdp-AE4B_qvULSoxO1iYD9mHwA
- 21 Khemka (2019). Twitter CDP. Available at: <https://twitter.com/cdp/status/992800840904794112?lang=en>
- 22 <http://www.ethicalcorp.com/companies-can-no-longer-ignore-deforestation-risk-consumers-want-bold-action-and-now>
- 23 <https://iopscience.iop.org/article/10.1088/1748-9326/aa836d?gridset=show>
- 24 <https://www.unenvironment.org/news-and-stories/story/forests-provide-critical-short-term-solution-climate-change>

ANNEXURES

Appendix I: Table of emissions, scores and sector by company

Climate Change Program 2019

Company Profile			CDP 2019		Emissions Profile (tons CO ₂ e)				
CDP ACS Classification: Primary Sector (CDP Activity Group)	Company Name	Sample	2019 Final Score	2019 Permission Status	Scope 1	Scope 2: Location-based	Scope 2: Market-based	Scope 3	Scope 3 (number of categories reported)
Bars, hotels & restaurants	Indian Hotels Co. Ltd.	BSE Top 200	C	Public	67097	224841.28		30051	3
	Biocon	BSE Top 200	C	Public	43315	137400		Not Provided	
	Divi's Laboratories	BSE Top 200	D	Non Public					
	Dr. Reddy's Laboratories	BSE Top 200	C	Public	305159	204550		237008	4
	ZCL Chemicals	SSC	Not Scored as they submitted 'minimum version questionnaire'	Public	Not Provided	Not Provided		Not Provided	
Biotech & pharma	ACC	BSE Top 200	B	Public	16781443	539334	400116	667370	4
	Ambuja Cements	BSE Top 200	C	Public	14849220	539597		1958586	6
	Dalmia Bharat Ltd	BSE Top 200	B	Non Public					
	JSW Cement Limited	SSC	C	Public	1405150	308731	308731	468694	3
	Shree Cement	BSE Top 200	B	Non Public					
	Ultratech Cement	BSE Top 200	B	Public	51270686	1216408		5879312	4
Cement & concrete	GHCL LIMITED	SSC	C	Public	1277270	96068		Not Provided	
	Godrej Consumer Products	BSE Top 200	B	Public	33434	29187		33834	3
	Gujarat Fluorochemicals	SSC	D-	Non Public					
	Jubilant Life Sciences Ltd	BSE Top 200	C	Non Public					
	Tata Chemicals	BSE Top 200	C	Public	4322169	38362		313273	4
Chemicals									
Energy utility networks	GAIL	BSE Top 200	D	Public	3424277.88	396423		Not Provided	

Company Profile			CDP 2019		Emissions Profile (tons CO ₂ e)				
CDP ACS Classification: Primary Sector (CDP Activity Group)	Company Name	Sample	2019 Final Score	2019 Permission Status	Scope 1	Scope 2: Location-based	Scope 2: Market-based	Scope 3	Scope 3 (number of categories reported)
Financial services	Axis Bank	BSE Top 200	C	Public	7089	140849		30917	3
	HDFC Bank Ltd	BSE Top 200	B	Public	6896.99	449601.68		15722	4
	Indusind Bank	BSE Top 200	A-	Public	5299.38	60907.97		14350	3
	Kotak Mahindra Bank	BSE Top 200	C	Public	70.19	77750.41		9416	3
	Larsen & Toubro Infotech Ltd	BSE Top 200	B-	Public	416.37	26475.24		17831	2
	Mahindra & Mahindra Financial Services	BSE Top 200	C	Public	1737.55	2845.26		12168	3
	Piramal Enterprises	BSE Top 200	D	Public	28627	78279		Not Provided	
	State Bank of India	BSE Top 200	C	Public	418	1163367		216107	5
	YES BANK Limited	BSE Top 200	A-	Public	3078.3	30453.16		45968	4
Food & beverage processing	Godrej Industries	BSE Top 200	B	Public	36634	43480		9426	3
	Marico	BSE Top 200	C	Public	2894	14216		211246	5
	Tata Global Beverages	BSE Top 200	A-	Public	10090	18825	16825	571785	7
Intermodal transport & logistics	Adani Ports & Special Economic Zone	BSE Top 200	C	Public	76353	193817		Not Provided	
IT & software development	HCL Technologies	BSE Top 200	B-	Public	10146.96	173541.76		56678	2
	Infosys Limited	BSE Top 200	A-	Public	12532	124026		347160	6
	Mindtree Ltd	BSE Top 200	C	Non Public					
	Tata Consultancy Services	BSE Top 200	A-	Public	27375	453391	409991	708758	7
	Tech Mahindra	BSE Top 200	A-	Public	2561.04	108418.24		39188	4
	Wipro	BSE Top 200	A-	Public	13424	103866		380946	6
Land & property ownership & development	Mahindra Lifespace Developers Limited	SSC	B	Public	155	2755		277001	8
Leisure & home manufacturing	Godrej Interio Division-Godrej & Boyce Mfg.Co.Ltd.	SSC	D	Public	5988	12790		Not Provided	
	Titan Company	BSE Top 200	D	Public	3319.4	31391.88		67125	7
Light manufacturing	JK Tyres & Industries	SSC	C	Public	193760	127748		Not Provided	
Media, telecommunications & data center services	Bharti Airtel	BSE Top 200	Not Scored as they submitted 'minimum version questionnaire'		Non Public				
	Reliance Jio Infocomm Limited	SSC	B	Public	862975	3139706		5039	1
	Tata Communications	BSE Top 200	C	Public	4506	130337		248877	3

Company Profile			CDP 2019		Emissions Profile (tons CO ₂ e)				
CDP ACS Classification: Primary Sector (CDP Activity Group)	Company Name	Sample	2019 Final Score	2019 Permission Status	Scope 1	Scope 2: Location-based	Scope 2: Market-based	Scope 3	Scope 3 (number of categories reported)
Metal smelting, refining & forming	Bharat Forge	BSE Top 200	D	Public	123370	315360		Not Provided	
	Hindustan Zinc	BSE Top 200	B	Public	4704635	167239		4216744	8
	JSW Steel	BSE Top 200	B	Public	41938345.6	3909965		7444643	8
	Mahindra Sanyo Special Steel Pvt. Ltd	SSC	B-	Public	47569	138349	127039	229165	8
	Tata Steel	BSE Top 200	B	Public	56093007	4137575	3331608	14226000	9
Metallic mineral mining	NMDC	BSE Top 200	D	Non Public					
Oil & gas processing	Bharat Petroleum Corporation	BSE Top 200	D	Public	5167630	272550		23590	2
	Indian Oil Corporation	BSE Top 200	C	Public	16628799	78650		Not Provided	
Textiles & fabric goods	ARVIND Ltd	BSE Top 200	D	Public	331149	340276		Not Provided	
Thermal power generation	JSW Energy	BSE Top 200	C	Public	18529349	37428		5028	2
	NTPC Ltd	BSE Top 200	D	Non Public					
	Tata Power Co	BSE Top 200	D	Public	36053865	13609		2473	1
	Welspun India Ltd	SSC	D-	Non Public					
Transportation equipment	Hero Motocorp Ltd	BSE Top 200	D	Non Public					
	Mahindra & Mahindra	BSE Top 200	A-	Public	45768	247948	234351	18643318	13
	Tata Motors	BSE Top 200	B	Public	105318	385002.41		4456542	7

Water Security Program 2019

CDPACS Classification: Primary Sector (CDP Activity Group)	Company Name	CDP 2019 Final Score
Bars, Hotels & Restaurants	Indian Hotels Co. Ltd.	Not scored as they submitted 'minimum version' questionnaire
Biotech & Pharma	Dr. Reddy's Laboratories	B-
	ZCL Chemicals	Not scored as they submitted 'minimum version' questionnaire
Cement & Concrete	Ambuja Cements	B
Chemicals	Jubilant Life Sciences Ltd	B-
	Tata Chemicals	B-
Financial services	Piramal Enterprises	B-
Food & beverage processing	Marico	B-
IT & software development	Tech Mahindra	B
Light manufacturing	JK Tyres & Industries	Not scored as they submitted 'minimum version' questionnaire
Metal smelting, refining & forming	Hindustan Zinc	B
	Mahindra Sanyo Special Steel Pvt. Ltd	B-
	Tata Steel	B
Transportation Equipment	Mahindra & Mahindra	B
Intermodal transport & logistics	Adani Ports & Special Economic Zone	Not scored as they submitted 'minimum version' questionnaire

Appendix II: List of companies invited to respond to Climate Change and Water Security questionnaire

Climate Change (BSE Top 200)

CDP Primary Sector (CDP Activity Group)	Company Name	Response Status
Air transport	InterGlobe Aviation Ltd	Not submitted
Apparel design	Page Industries Ltd	Not submitted
Bars, hotels & restaurants	Jubilant Foodworks Ltd	Not submitted
	Indian Hotels Co. Ltd.	Submitted
Biotech & pharma	Ajanta Pharma Ltd.	Not submitted
	Alkem Laboratories Ltd	Not submitted
	Aurobindo Pharma	Not submitted
	Biocon	Submitted
	Cipla	Not submitted
	Divi's Laboratories	Submitted
	Dr. Reddy's Laboratories	Submitted
	GlaxoSmithKline Pharmaceuticals	Not submitted
	Glenmark Pharmaceuticals	Not submitted
	Lupin	Not submitted
	Natco Pharma Ltd	Not submitted
	Sun Pharmaceutical Industries	Not submitted
	Torrent Pharmaceuticals	Not submitted
	ACC	Submitted
	Ambuja Cements	Submitted
Cement & concrete	Century Textiles & Industries	Not submitted
	Dalmia Bharat Ltd	Submitted
	Grasim Industries	Not submitted
	Shree Cement	Submitted
	The Ramco Cements Ltd	Not submitted
	Ultratech Cement	Submitted
	PI Industries Ltd	Not submitted
Chemicals	UPL Limited	Not submitted
	United Breweries	Not submitted
	Supreme Industries Ltd	Not submitted
	Tata Chemicals	Submitted
	Coromandel International	Not submitted
	Colgate Palmolive (India) Ltd	See Another
	Dabur India	Not submitted
	Emami Ltd.	Not submitted
	Godrej Consumer Products	Submitted
	Procter & Gamble Hygiene & Health Care Ltd	Not submitted

CDP Primary Sector (CDP Activity Group)	Company Name	Response Status
	Hindustan Unilever Ltd	See Another
	Asian Paints	Not submitted
	Berger Paints India Ltd	Not submitted
	Castrol India	Not submitted
	Jubilant Life Sciences Ltd	Submitted
	Kansai Nerolac Paints Limited	Not submitted
	Pidilite Industries Ltd	Not submitted
Coal mining	Coal India	Not submitted
Commercial & consumer services	Quesst Corp Ltd	Not submitted
Construction	Larsen & Toubro	Not submitted
	Bharti Infratel Limited	Not submitted
Convenience retail	Avenue Supermarts Ltd	Not submitted
Discretionary retail	Aditya Birla Fashion and Retail Ltd	Not submitted
	Future Retail Ltd	Not submitted
	Amara Raja Batteries Ltd	Not submitted
	Exide Industries	Not submitted
	ABB India Ltd	See Another
	Bharat Electronics	Not submitted
	Havells India	Not submitted
Electrical & electronic equipment	Motherson Sumi Systems	Not submitted
	Siemens Ltd	Not submitted
	Voltas	Not submitted
	Bayer CropScience Ltd	See Another
	Crompton Greaves Consumer Electricals Ltd	Not submitted
	Whirlpool of India Ltd	Not submitted
Energy utility networks	Power Grid Corpn. of India	Not submitted
	GAIL	Submitted
	Indraprastha Gas Ltd	Not submitted
	Bajaj Holdings & Invst. (BHIL)	Not submitted
Financial services	Edelweiss Financial Services Ltd	Not submitted
	IDFC First Bank Ltd	Not submitted
	L&T Finance Holdings Limited	Not submitted
	Motilal Oswal Financial Services Ltd	Not submitted

CDP Primary Sector (CDP Activity Group)	Company Name	Response Status	CDP Primary Sector (CDP Activity Group)	Company Name	Response Status
Financial services	Muthoot Finance Limited	Not submitted	Financial services	Bajaj Finserv	Not submitted
	Piramal Enterprises	Submitted		General Insurance Corporation of India	Not submitted
	Reliance Nippon Life Asset Management Ltd	Not submitted		HDFC Life Insurance Company Ltd	Not submitted
	State Bank of India	Submitted		ICICI Lombard General Insurance Company Ltd	Not submitted
	AU Small Finance Bank Ltd	Not submitted		ICICI Prudential Life Insurance Company Ltd	Not submitted
	Axis Bank	Submitted		Max Financial Services	Not submitted
	Bajaj Finance Limited	Not submitted		Reliance Capital Ltd	Not submitted
	Bank of Baroda	Not submitted		SBI Life Insurance Company Ltd	Not submitted
	Bank of India	Not submitted		The New India Assurance Company Ltd	Not submitted
	Bharat Financial Inclusion Ltd.	Not submitted	Food & beverage processing	Britannia Industries	Not submitted
	Canara Bank	Not submitted		Nestle India Ltd	See Another
	Central Bank of India	Not submitted		GlaxoSmithKline Consumer Health	Not submitted
	City Union Bank Ltd.	Not submitted		Godrej Industries	Submitted
	Dewan Housing Finance Corporation Limited	Not submitted		Marico	Submitted
	Federal Bank	Not submitted	Health care provision	Tata Global Beverages	Submitted
	Gruh Finance Ltd	Not submitted		Apollo Hospitals Enterprises	Not submitted
	HDFC Bank Ltd	Submitted	Industrial support services	GMR Infrastructure Limited	Not submitted
	Housing Development Finance Corporation	Not submitted	Intermodal transport & logistics	Adani Ports & Special Economic Zone	Submitted
	ICICI Bank Limited	Not submitted	IT & software development	HCL Technologies	Submitted
	IDBI Bank Ltd	Not submitted		Mindtree Ltd	Submitted
	Indiabulls Housing Finance Ltd	Not submitted		Mphasis	Not Submitted
	Indiabulls Ventures Ltd	Not submitted		Tata Consultancy Services	Submitted
	Indian Bank	Not submitted		Tech Mahindra	Submitted
	Indusind Bank	Submitted		Wipro	Submitted
	Kotak Mahindra Bank	Submitted		Infosys Limited	Submitted
	Larsen & Toubro Infotech Ltd	Submitted		Oracle Financial Services	Not submitted
	LIC Housing Finance	Not submitted	Land & property ownership & development	Godrej Properties Limited	Not submitted
	Mahindra & Mahindra Financial Services	Submitted		Oberoi Realty	Not submitted
	PNB Housing Finance Ltd	Not submitted	Leisure & home manufacturing	Rajesh Exports Ltd	Not submitted
	Power Finance Corporation	Not submitted		Titan Company	Submitted
	Punjab National Bank	Not submitted	Light manufacturing	3M India Ltd	Not submitted
	RBL Bank Ltd	Not submitted		APOLLO TYRES LTD	Not submitted
	REC Ltd	Not submitted		Balkrishna Industries Ltd	Not submitted
	Shriram City Union Finance Ltd	Not submitted		MRF LTD	Not Submitted
	Shriram Transport Finance Co.	Not submitted	Media, telecom-communications & data center services	Sun TV Network	Not submitted
	Union Bank of India	Not submitted			
	YES BANK Limited	Submitted			
	Cholamandalam Investment and Finance Company Ltd	Not submitted			

CDP Primary Sector (CDP Activity Group)	Company Name	Response Status
Media, telecom-munications & data center services	Zee Entertainment Enterprises	Not submitted
	Tata Communications	Submitted
	Bharti Airtel	Submitted
	Vodafone Idea Ltd	Not submitted
Metal products manufacturing	Bosch Ltd	Not submitted
	Endurance Technologies Ltd	Not submitted
	Gillette India	Not submitted
	Hindalco Industries	Not submitted
Metal smelting, refining & forming	Vedanta Ltd	See Another
	Jindal Steel & Power	Not submitted
	JSW Steel	Submitted
	Steel Authority of India	Not submitted
	Tata Steel	Submitted
	Bharat Forge	Submitted
	Hindustan Zinc	Submitted
Metallic mineral mining	National Aluminium Co.	Not submitted
	NMDC	Submitted
Oil & gas extraction & production	Petronet LNG	Not submitted
	Oil India Ltd.	Not submitted
Oil & gas processing	Bharat Petroleum Corporation	Submitted
	Hindustan Petroleum Corporation	Not submitted
	Indian Oil Corporation	Submitted
	Mangalore Refinery and Petrochemicals	Not submitted
	Oil & Natural Gas	Not submitted
	Reliance Industries	Not submitted
Oil & gas storage & transportation	Gujarat State Petronet	Not submitted
Other services	DLF	Not submitted
Powered machinery	AIA Engineering Ltd.	Not submitted
	Bharat Heavy Electricals	Not submitted
	Cummins India Ltd	See Another
	Adani Transmission Ltd	Not submitted

CDP Primary Sector (CDP Activity Group)	Company Name	Response Status
Rail transport	Container Corporation of India	Not submitted
Renewable power generation	National Hydroelectric Power Corporation Ltd (NHPC)	Not submitted
Specialized professional services	Engineers India Ltd	Not submitted
	NBCC Ltd	Not submitted
	CRISIL LTD	Not submitted
Textiles & fabric goods	ARVIND Ltd	Submitted
Textiles & fabric goods	SRF Ltd.	Not submitted
Thermal power generation	Torrent Power	Not submitted
	Adani Power Ltd	Not submitted
	CESC Ltd	Not submitted
	JSW Energy	Submitted
	NTPC Ltd	Submitted
	Reliance Infrastructure	Not submitted
	Reliance Power	Not submitted
	Tata Power Co	Submitted
Tobacco	ITC Limited	Not submitted
Trading, wholesale, distribution, rental & leasing	PC Jeweller Ltd	Not submitted
	Cadila Healthcare	Not submitted
Transportation equipment	Ashok Leyland	Not submitted
	Bajaj Auto	Not submitted
	Eicher Motors Ltd	Not submitted
	Hero Motocorp Ltd	Submitted
	Mahindra & Mahindra	Submitted
	Maruti Suzuki India	Not submitted
	Tata Motors	Submitted
	TVS Motor Company Ltd	Not submitted
Web & marketing services	Info Edge (India) Ltd.	Not submitted

Self-selected companies

CDP Primary Sector	Company name	Response status
Biotech & pharma	ZCL Chemicals	Submitted
Chemicals	GHCL Limited	Submitted
Chemicals	Gujarat Fluorochemicals	Submitted
Land & property ownership & development	Mahindra Lifespace Developers Limited	Submitted
Leisure & home manufacturing	Godrej Interio Division-Godrej & Boyce Mfg.Co.Ltd.	Submitted
Light manufacturing	JK Tyres & Industries	Submitted
Media, telecommunications & data center services	Reliance Jio Infocomm Limited	Submitted
Metal smelting, refining & forming	Mahindra Sanyo Special Steel Pvt. Ltd	Submitted
Thermal power generation	Welspun India Ltd	Submitted

Water Security

Investor Sample

CDP Primary Sector (CDP Activity Group)	Company Name	Response Status
Bars, Hotels & Restaurants	Indian Hotels Co. Ltd.	Submitted
Biotech & Pharma	Biocon	Not submitted
	Dr. Reddy's Laboratories	Submitted
	Sun Pharmaceutical Industries	Not submitted
	ACC	Not submitted
Cement & concrete	Ambuja Cements	Submitted
	Dalmia Bharat Ltd	Not submitted
	Shree Cement	Not submitted
	Ultratech Cement	Not submitted
Chemicals	Asian Paints	Not submitted
	Coromandel International	Not submitted
	Dabur India	Not submitted
	Godrej Consumer Products	Not submitted
	Jubilant Life Sciences Ltd	Submitted
	Kansai Nerolac Paints Limited	Not submitted
	Tata Chemicals	Submitted
Coal Mining	Coal India	Not submitted
Construction	Larsen & Toubro	Not submitted
Energy Utility Networks	GAIL	Not submitted
Financial services	Piramal Enterprises	Submitted
Food & beverage processing	Godrej Industries	Not submitted
	Tata Global Beverages	Not submitted
	Marico	Submitted
Light manufacturing	MRF LTD	Not submitted

CDP Primary Sector (CDP Activity Group)	Company Name	Response Status
Metal smelting, refining & forming	Bharat Forge	Not submitted
	Hindalco Industries	Not submitted
	Hindustan Zinc	Submitted
	JSW Steel	Not submitted
	Tata Steel	Submitted
	Vedanta Ltd	Not submitted
Metallic mineral mining	NMDC	Not submitted
Oil & Gas Processing	Bharat Petroleum Corporation	Not submitted
	Indian Oil Corporation	Not submitted
	Oil & Natural Gas	Not submitted
	Reliance Industries	Not submitted
Textiles & fabric goods	ARVIND Ltd	Not submitted
Thermal power generation	JSW Energy	Not submitted
	NTPC Ltd	Not submitted
	Tata Power Co	Not submitted
Tobacco	ITC Limited	Not submitted
Transportation Equipment	Bajaj Auto	Not submitted
	Hero Motocorp Ltd	Not submitted
	Mahindra & Mahindra	Submitted
	Maruti Suzuki India	Not submitted
	Tata Motors	Not submitted

Self-Selected Companies

CDPACS Classification: Primary Sector (CDP Activity Group)	Company Name	Response Status
Intermodal transport & logistics	Adani Ports & Special Economic Zone	Submitted
Light manufacturing	JK Tyres & Industries	Submitted
Metal smelting, refining & forming	Mahindra Sanyo Special Steel Pvt. Ltd	Submitted
IT & software development	Tech Mahindra	Submitted
Biotech & Pharma	ZCL Chemicals	Submitted

Note:

'See Another' = The response is covered by another CDP reporting company, usually the parent company

Appendix III: Indian Companies Committed to Action

Science-based Target initiative (SBTi)

Approved 1.5°C

Mahindra Lifespaces Developers Limited	Mahindra World City (Jaipur) Ltd [†]	Mahindra World City Developers Ltd [†]
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Approved Well-below 2°C

Mahindra Electric Mobility Ltd [†]	Mahindra First Choice Services Ltd. [†]	Wipro
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Approved 2°C

Hindustan Zinc Limited	Mahindra Sanyo Special Steel	Shree Cement Ltd.	Tech Mahindra
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SBTi Committed

Ambuja Cement Ltd	Gujarat Fluorochemicals Ltd. (GFL)	Mahindra Holidays and Resorts India Limited [†]	Reliance Jio Infocomm Limited
Bharti Airtel Limited	Havells India Limited [†]	Mahindra Logistics Ltd. [†]	Swaraj Engines Limited [†]
Dalmia Bharat Limited	HCL Technologies	Mahindra Susten [†]	Tata Chemicals Limited
Dr. Reddy's Laboratories Ltd.	JK Tyre & Industries Ltd	Marico Limited	Tata Global Beverages Ltd.
Eastman Exports Global Clothing Pvt Ltd [†]	Mahindra & Mahindra Financial Services Limited	Omax Cotspin Pvt. Ltd. [†]	Wake-up Technology Private Limited [†]
EPC Industrie Limited [†]	Mahindra & Mahindra Limited	Paul And Mike [†]	White House [†]
Gromax Agri Equipment Limited [†]	Mahindra Accelo [†]	Polygenta Technologies Limited [†]	YES Bank

[†] SBTi companies not in CDP Sample

RE100

Dalmia Bharat Ltd	Hatsun Agro Product Ltd [#]	Infosys Ltd	Mahindra Holidays & Resorts India Ltd [#]	Tata Motors Ltd
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[#] RE100 companies outside of CDP supply chain or Investor sample

Internal Carbon Pricing (ICP)

Pricing carbon in 2019

ACC	Ambuja Cements	Dalmia Bharat Ltd	Godrej Consumer Products
Godrej Industries	Hindustan Zinc	Infosys Limited	Mahindra & Mahindra
Mahindra Sanyo Special Steel Pvt. Ltd	Mindtree Ltd	Shree Cement	Tata Chemicals
Tata Consultancy Services	Tata Global Beverages	Tata Motors	Tata Steel
Tech Mahindra	Ultratech Cement	Wipro	Creative Group of Industries*

Planning to price in next two years

Adani Ports & Special Economic Zone	ARVIND Ltd	Bharat Forge	Dr. Reddy's Laboratories
Godrej Interio Division-Godrej & Boyce Mfg.Co.Ltd.	Gujarat Fluorochemicals	Hero Motocorp Ltd	Indian Hotels Co. Ltd.
JK Tyres & Industries	JSW Cement Limited	JSW Energy	JSW Steel
Jubilant Life Sciences Ltd	Larsen & Toubro Infotech Ltd	Mahindra & Mahindra Financial Services	Mahindra Lifespace Developers Limited
Marico	NTPC Ltd	Piramal Enterprises	Reliance Jio Infocomm Limited
Tata Communications	Tata Power Co.	YES BANK Limited	Parksons Packaging Limited Chakan*
AVTEC Ltd*	Unique Polypack*	Wonder*	Sigma Electric Manufacturing Corporation Private Limited*
Indo Count Industries*	Radiant Exports*	Shahi Exports Pvt. Ltd.*	

* CDP supply chain company

Notes

[illegible]

About CDP

CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts by running a global environmental disclosure system. Each year CDP supports thousands of companies, cities, states and regions to measure and manage their risks and opportunities on climate change, water security and deforestation. We do so at the request of their investors, purchasers and city stakeholders.

Over the last two decades we have created a system that has resulted in unparalleled engagement on environmental issues worldwide. In 2019, Over 8,400 companies reported through CDP on climate change, water security and forests, and, over 800 cities and more than 120 states and regions disclosed their environmental impacts through CDP.

CDP India

CDP began working in India in 2008 and was formally registered in 2012, working on disclosure and driving climate action. It serves as a source of knowledge for hundreds of Indian corporations, from those that are just beginning on the road to corporate environmental disclosure, through to those looking to improve sustainability and make commitments to reduce environmental impact.

It is the only NGO to be named in India's INDC submission to the UNFCCC owing to its corporate environmental data repository and tracking of emissions and mitigation data from the Indian Industry. CDP India also actively participated in Government of India's Ministry of Environment, Forests & Climate Change (MoEFCC) work on future carbon market mechanisms. In addition to our work on disclosure, CDP India is actively engaged in other initiatives including Internal Carbon Pricing (ICP), Science-based targets (SBT) and RE100.

Services provided:

- **Environmental Reporter Services program:** CDP Reporter Services helps your company build expertise in carbon, forest and water reporting and management. A Reporter Services member is benefited through tailored support, enhanced data access and thought leadership insights on reporting and managing their environmental climate, forest and water risks and impacts. Understanding best practices, assessing peer benchmarking leads towards environmental stewardship.
- **Beyond Disclosure program:** This programme provides insights, feedback and practical support to help companies improve their reporting practices, in line with the TCFD recommendations and regulatory requirements
- **SBT Incubator:** This incubator will provide complete technical assistance to companies in developing their science-based targets and support all the companies that are willing to undertake their sustainability journey to the next level of decarbonization i.e. WB2DS and 1.5 DS

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