India Inc. aligns with NDC and Paris Agreement to seize opportunities

CDP India Climate Change Report 2017

Written on behalf of 803 investors with US$100 trillion in assets

October 2017

CDP 2017 scoring partners

CDP works with a number of partners to deliver the scores for all our responding companies. These partners are listed below along with the geographical regions in which they provide the scoring. All scoring partners complete training to ensure the methodology and guidance are applied correctly, and the scoring results go through a comprehensive quality assurance process before being published. In some regions there is more than one scoring partner and the responsibilities are shared between multiple partners.

In 2017, CDP worked with RepRisk, a business intelligence provider specializing in ESG risks (www.reprisk.com), who provided additional risk research and data into the proposed A-List companies to assess whether there were severe reputational issues that could put their leadership status into question.

ADEC INNOVATIONS ESG SOLUTIONS

Global climate change scoring partner

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Japan, Latin America, Turkey

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Lloyd's Register

Japan

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Iberia (Spain & Portugal)

Quick

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SGS

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TEC

Japan

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For an insurance giant like Aviva, failing to successfully halt climate change is unthinkable. "Our sector has an existential issue with warming above 4 degrees," says Steve Waygood, Aviva Investors' chief responsible investment officer. "It simply won't be possible to price insurance products at a premium we can sustain, and which economies can afford.

"That's a profound macroeconomic problem, given the role of insurance in pricing and redistributing risk."

On the asset side of its balance sheet, meanwhile, Aviva faces challenges relating to the climate risks to which its investments are exposed. He cites a study carried out by Aviva with the Economist[1], which found that 6 degrees of warming would wipe US$43 trillion off the value of global capital markets. "The entire value of the MSCI World equity index is only US$38 trillion – that's obviously a clear and present danger."

For that reason, Aviva has been a prominent voice in the climate change debate: disclosing on climate risk since 2004, incorporating climate risk into strategy and governance, engaging with investee companies, and playing an important role on the Task Force for Climate-Related Financial Disclosures (TCFD), on which Waygood sits.

"As investors, the TCFD has given us a very powerful mandate," he says. "It has shifted the burden of proof to companies to explain why climate risk isn't an issue." And, for those that recognize climate exposures, the "new norm is that companies should be considering climate risk at the board level. It's created a new concept of climate risk governance."

The TCFD recommends that companies disclose how they are likely to perform against various climate scenarios – which Waygood says will provide additional insight, but which are unlikely to tell the whole story. "A good scenario, that has been properly considered by the board, that looks at the downside risk is evidence of good quality management."

But he notes there is, as yet, no standardized way for each sector to produce scenarios, nor sector reference scenarios against which a company's scenario reporting might be compared – although he suggests there may be a role for the TFCD to produce these benchmarks.

Waygood also acknowledges that climate disclosure poses challenges for financial services groups such as his, noting that it is still not yet clear what the most appropriate metrics are for investors to disclose against. "We haven't got it cracked – I'm not happy with the state of the art," he says, noting that simply disclosing the carbon footprinting of a portfolio "doesn't cut it", as emissions can rise and fall for reasons not linked to climate risk management.

"We need a reference scenario for fund management," he suggests, that sketches out what a transition pathway to 2 degrees looks like, allowing investors to disclose how close their portfolio is to matching it.

Aviva will continue to encourage the companies in which it invests to use the TCFD guidance, but Waygood adds that more system-wide pressure needs to be brought to bear.

"It's as important that we use our influence in the political process to encourage those in Brussels, Westminster or Washington to use the TCFD in important international processes such as the International Accounting Standards Board, and the International Organization of Securities Commissions (IOSCO)," he says.

"We need to encourage the system to use this guidance and make it more than voluntary," he says, adding that he would also like to see the proxy voting firms and credit rating agencies explicitly referencing TCFD data, as well as the regulations that govern the financial sector – Basel III for banks and Solvency II for insurers – take climate risk into account.

"We have a role as investors, in terms of influencing the companies we own, as well as in terms of advocating how the financial system evolves," he concludes.

1 https://www.eiuperspectives.economist.com/sites/default/files/The%20cost%20of%20inaction_0.pdf

CEO foreword

The transition to a low-carbon economy will create winners and losers within and across sectors. As new businesses and technologies emerge and scale up, billions of dollars of value are waiting to be unlocked, even as many more are at risk.

A changing climate is becoming more evident. This year has brought intense Atlantic hurricanes, severe wild fires in California, an exceptional monsoon across South Asia, a stifling heatwave across Europe, and record-low wintertime sea ice in the Arctic. These changes threaten ecosystems, communities and our economic well-being, with significant assets at risk from climate change.

This evidence is not going unnoticed. Public concern is growing; and policy makers and regulators are responding. The Chinese government, for example, is set to launch a national carbon emissions trading scheme by the end of this year. Companies around the world, from all sectors, have begun transitioning their business models away from a dependence on fossil fuels and towards the low-carbon economy of the future.

In this year's CDP analysis, which is based on the climate data disclosed to us by over 1,000 of the world's largest, highest-emitting companies, we reveal that a growing number are setting longer-term emissions reduction targets, planning for low-carbon into their business models out to 2030 and beyond. The number of companies in our sample that have committed to set emissions reduction targets in line with or well below a 2 degrees Celsius pathway, via the Science Based Targets initiative, has increased from 94 to 151 in the space of a year. Continuing this momentum, an additional 317 companies plan to commit to a science-based target within two years. EDP and Unilever are two of those companies sharing their story of how and why they decided to set a science-based target in our analysis. Aligned to these targets, the significant increase in companies from our sample that are setting targets to consume renewable energy including through the RE100 initiative, or produce their own, shows how companies are embracing the cheaper, more secure supply of clean energy to meet their low-carbon goals.

Regulators have begun to respond to the risks, notably with the Task Force on Climate-related Financial Disclosures. Established by the Financial Stability Board, the Task Force has moved the climate disclosure agenda forward by emphasizing the link between climate risk and financial stability. The Task Force has recommended that both companies and investors disclose climate change information, including conducting scenario analysis in line with a 2 degrees Celsius pathway and setting out the impacts on their strategy of those scenarios. This amplifies the longstanding call from CDP's investor signatories for companies to disclose comprehensive, comparable environmental data in their mainstream reports, driving climate risk management further into the boardroom.

This year, more than 6,300 companies, accounting for around 55% of the total value of global listed equity markets, have disclosed information on climate change, water and deforestation through our reporting platform. This request from CDP was made on behalf of more than 800 investors with assets of US$100 trillion.

To meet the growing needs of these investors, we are evolving our disclosure platform to introduce sector-based reporting and align our information request with the recommendations of the Task Force for 2018. This will help to further illuminate to company boards and their shareholders the risks and opportunities presented by the low-carbon transition, so they can act swiftly to shift their business models accordingly.

The environmental disclosures that leading companies are making through CDP are providing data across capital markets to inform better decisions and drive action. Companies are reporting how science-based carbon emission reduction targets can drive business and sustainability improvements. They are showing how renewable energy purchases are helping companies to cut emissions and how setting an internal carbon price can drive efficiency and shift investment decisions. They are revealing how their products and services directly enable third parties to avoid greenhouse gas emissions. They are collaborating with cities, states, regions and other companies to drive positive impact in their own operations and through value chains.

This report tracks the progress of corporate action on climate change. Last year, in the wake of the Paris Agreement, we established a baseline for corporate climate action. This year, we measure progress to date. As we show, there are some encouraging trends emerging, with more companies setting further reaching carbon emissions reduction targets, and greater accountability for climate change issues within the boardroom. But, there is no doubt that more companies need to act quickly and the pace of change needs to accelerate if we are to meet the goals of the Paris Agreement and ensure long term financial and climate stability.

Disclosure of quality data is crucial to support this progress. It leads to smarter decisions and informs companies and governments of the actions they need to take. It's encouraging to see more companies setting longer-term targets; data will be key to seeing how they are performing against these over time.

Make no mistake: we are at a tipping point in the low-carbon transition. There are enormous opportunities to be had for the companies that are positioning themselves at the leading edge of this tipping point; and enormous risks for those that haven't yet taken action.

Paul Simpson
CEO, CDP

ERM commentary

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In 2017, a larger percentage of companies in India reported emissions reduction initiatives, renewable energy goals and internal pricing targets on carbon emissions. This progress was achieved in a year of no high-profile climate change related events like the Paris COP meeting in 2015. On the contrary, the biggest climate change related news item this year was the United States pulling out of Paris Agreement. Progress in the face of backtracking by a major economy an indicator that climate change action in India has reached a point of no return. On the capital allocation side of the economy, auctions on rights to develop solar and wind power plants received bids that finally brought some renewables to grid parity in India. Indian Renewable Energy (RE) generators are offering renewable power at some of the lowest prices in the world. Solar energy is the preferred choice of RE among developers in India with 13.1 GW[2] of grid connected solar PV capacity installed by June 2017. There were issues of curtailment of RE by grid operators, open access to transmission infrastructure and breach of PPAs in some States that raised questions on the future profitability of RE projects. The policy response from the Government is eagerly awaited by the industry.

This year also marked a bold announcement by the Government of the intention to produce and sell only electric vehicles in India by 2030. These will run on electric power generated in power plants, both renewable and conventional, delivered over the electricity grid to vehicle charging stations. This will be significantly more efficient from an energy use and greenhouse gas (GHG) emissions point of view compared to fossil fuel used in internal combustion engines of individual vehicles. The Government continued to provide policy support to clean energy generation from wind and solar at the cost of lower utilization of publicly owned conventional fuel power plants. India's GDP growth had a marked slowdown in 2017 resulting in spare capacity in conventional generating assets. Many of these assets are relatively new and the Government is under tremendous pressure to utilize this excess capacity before using renewables. A somewhat related issue in 2017 was lack of progress by developed countries on raising by 2020, the annual USD 100 billion Green Climate Fund (GCF). This was a sore point with policy makers in India as they debated further policy action on climate change issues. In 2017, the Government continued its push for Smart Cities projects that commit urban areas to more efficient usage of resources such as energy and water. To give further impetus to low carbon development in the private sector, the Government needs to start communicating NDCs to India Inc. and initiate discussions on mechanisms to allocate and track emission reduction goals across the economy. Lack of availability of environmental data for financial analysis was identified as a gap at the G20 summit in Hamburg and the Government needs to start thinking of ways and means to put good data in the public domain that can be useful in integrating "green" in financial analysis. Implementation of TCFD recommendations on Indian companies will be a good start.

For over twenty years, ERM in India has played an integral role in helping Indian and foreign investors assess the environmental, social, health & safety and governance related risks to their investments. Since the signing of the Paris Agreement, an increasing number of clients have engaged us for climate change related risk services. ERM's regulatory expertise in a GHG constrained world has been of particular value to clients. Our domain experts have supported businesses with onsite assessment of physical risks from severe flooding, storm damage, water shortages and other impacts of climate change. Companies are utilizing our services to inventory GHG emissions at current assets and planned acquisitions. RE100 companies seeking to reduce their dependence on fossil fuels are engaging ERM to create roadmaps for a transition to 100% RE in a feasible, thoughtful and planned manner. ERM's impact assessment services assist private and public sector companies in locating sustainability infrastructure with minimal disruption to the impacted communities and the ecosystem. While most of our work so far is focused on GHG mitigation activities, ERM is committed to orienting its resources towards adaptation to a changing climate as its impacts become more severe and widespread and the need for a more proactive stance on adaptation is felt by policy makers.

ERM (Environmental Resources Management) is a leading global provider of environmental, health, safety, risk, social consulting services and sustainability related solutions.

For details, please log onto www.erm.com

2 http://mnre.gov.in/mission-and-vision-2/achievements/

A fast-evolving landscape and the role of CDP

Over the years, CDP has played an important role monitoring disclosure by the corporate world, a task for which we were commended in India's INDC. In early September 2017, Union Minister Dr. Harsh Vardhan again acclaimed the role of carbon disclosure at the Business & Climate Summit in Delhi.

Data disclosed to CDP shows a steady rise in corporate world's commitments and contributions helping achieve and exceed the NDC targets. CDP is evaluating absolute and intensity emissions reduction targets and initiatives set by business, monitoring the progress towards renewable energy consumption and production, and facilitating companies in evolving the strategic business models such as internalising a price on carbon which could help mitigate climate risk. We find a substantial overlap between the targets and strategies of companies, and essential parameters highlighted under India's NDCs. CDP India 2017 data indicates how organizations in India are taking action to complement the ambitious objectives set forth by NDCs.

Climate action is on the upswing with several concurrent initiatives unfolding simultaneously and serving as an impetus for action at all levels- global, national and organisational. Over 160 Governments submitted Nationally Determined Contributions (NDCs) under the Paris Agreement; United Nations' Sustainable Development Goals (SDGs) were rolled out; while the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) declared their recommendations for the adoption and merging of climate and financial reporting. Businesses play a more crucial role than ever in contributing to sustainable development. Commitments made by companies, their disclosure, transparency via monitoring and verification, are the key enablers for companies to address climate risk, its mitigation and adaptation.

India's Nationally Determined Contribution (NDC)

In the lead up to the 2015 United Nations Climate Change Conference held in Paris, the United Nations Framework Convention on Climate Change (UNFCCC) requested all countries to codify their contributions on the reduction in GHG emissions and overall enhancement in climate performance. These submissions would include information about the country's emission reduction plans, pragmatic timelines required to achieve this deadline, scope of emission reduction, type of approach to be adopted for the same and a base year from which emission reductions will be measured, and a robust adaptation plan.

India's NDC pledged to undertake the following activities –

- Reduce emissions intensity of its GDP by 33-35% by 2030 from 2005 levels;
- Increase the share of non-fossil fuel-based electricity to 40% by 2030;
- Increase renewable energy generation to 175 GW by 2022;
- Enhance its forest cover which will absorb 2.5 to 3 billion tonnes of carbon dioxide by 2030.

By implementing the objectives set forth in the NDCs, India aims to pursue a low-carbon emissions pathway, while simultaneously endeavouring to meet all the developmental challenges that the country faces today. The eight key parameters highlighted in the NDC are Sustainable Lifestyles, Cleaner Economic Development, Reduce Emission Intensity of GDP, Increase the Share of Non-Fossil Fuel Based Electricity, Enhance Forests Carbon Sink, Adapt to Climate Change, Mobilize Finance, Technology Development &Transfer.

Status of India's NDC

The global perception of India's climate and energy future has changed rapidly. From a concern that India's energy needs could jeopardise climate futures, India is increasingly seen as a front-runner in the low-carbon future. Policy scenarios suggest scope for reduced emissions growth, but this scope is more limited in national development-based scenarios than pure decarbonisation scenarios. According to Centre for Policy Research[3], a Delhi based think-tank, conditions that will drive future emissions include the energy-intensity of industries that create jobs in the future, the ability to lock-in energy efficient measures, and the sustainability of recent renewable energy price trends.

Climate action is increasingly viewed in the national interest and as an opportunity for leadership at home and abroad. Indian policymakers are firm on honoring their NDC commitments and early indications are that India might outperform these targets. The rapid growth of renewable energy in India, combined with sustained reductions in coal imports and a slowdown in coal power plant development—with many a coal-fired "ultra-mega power projects" cancelled—is a strong indication that India's low-carbon energy transition is on track.

India's NDCs have been designed to create a blueprint for enhancing the overall climate performance of the country in its developmental perspective. The objectives pivot around India's policies and programs on promotion of energy access, sustainable development, clean energy, low-carbon and resilient urban centres, waste to wealth, safe, smart and sustainable green transportation network, abatement of pollution and India's efforts to enhance carbon sink through creation of forest and tree cover. It also captures citizens' and private sector's contribution to combating climate change.

Other ambitious actions planned include a voluntary carbon market in the next few years[4]. As the government's policies and NDC targets get further translated into actions by companies, measurement, reporting and verification (MRV) will take centre stage.

However, an analysis of the absolute emissions targets resulting from both 2020 and 2030 intensity targets have been ranked as 'Medium' by the Climate Action Tracker (CAT), an independent scientific analysis produced by three research organizations tracking climate action since 2009[5]. Upgrading the Indian NDC to match planned policies would move its NDC significantly towards the "sufficient" rating and would place it in a leadership position globally in these models as well.

3 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3034092

4 http://pib.nic.in/newsite/erelcontent.aspx?relid=170395

5 http://climateactiontracker.org/

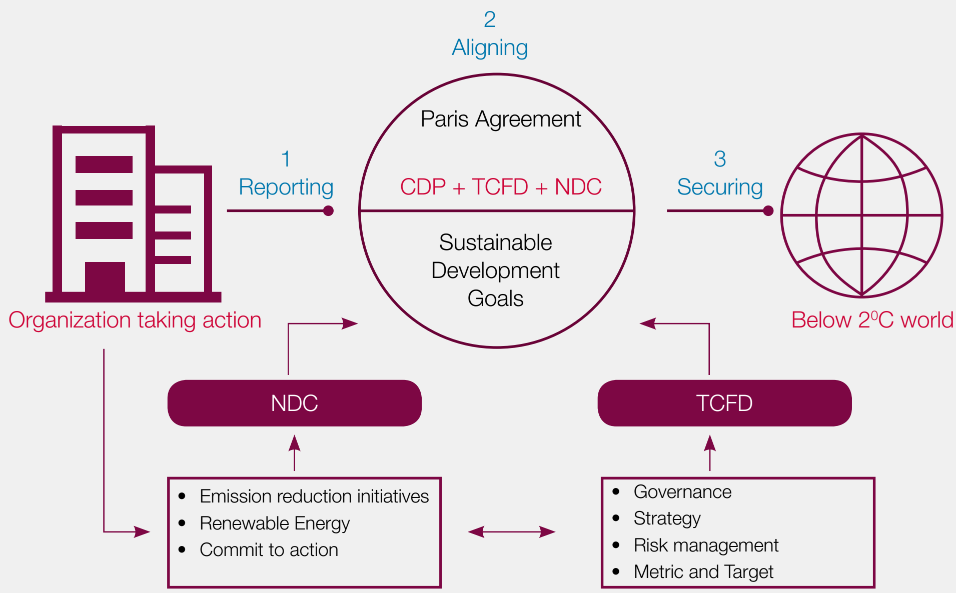
CDP's disclosure sections and the core elements of TCFD - Governance, Strategy, Risk Management, and Metrics and Targets are in alignment. CDP provides the platform, structure and streamlined template to put the information required by TCFD into a recognized established system that allows for trend analysis, year-on-year comparison and tracing information in a transparent manner. CDP is currently implementing the Reimagining Disclosure program through which it will holistically adopt TCFD in its disclosure programs. In addition, CDP's leadership in measurement (SBTs, carbon pricing), assessment and feedback of disclosure enables performance tracking for a company's pathway to a below two-degree world.

Task Force on Climate-related Financial Disclosures (TCFD)

The Task Force on Climate-related Financial Disclosures (TCFD), set-up by the G20's Financial Stability Board (FSB) has developed a framework for organizations across sectors to assess and price climate-related risk and opportunities. The TCFD recommends integration of climate information into mainstream financial filings.The recommendations cover governance, strategy, risk management, and metrics and targets. These aspects account for the global climate pact limiting the global average temperature rise to below 2°C.

Although the guidelines are voluntary, more than 100 companies have committed their support to the recommendations. The FSB, however, would like these recommendations to be made mandatory. It is widely accepted that climate-related financial disclosure is critical to assess the full extent of climate risk, bringing transparency and data consistency across.

Figure 1: How it all fits together



Robust and all-inclusive business models have to be adopted to ensure a low-carbon transformational growth across the entire value chain. Organizations will have to align their strategy with the objectives and targets set forth in conformity with NDCs and Sustainable Development Goals (SDGs) as well as already existing national mechanisms. As India Inc. becomes an important global player, international frameworks and standards like TCFD and Climate Disclosure Standards Board (CDSB) will need to be incorporated. These have been designed to be comprehensive, balanced, equitable and pragmatic in nature and have the potential to address the critical elements including Adaptation, Mitigation, Finance, Technology Transfer, Capacity Building and Transparency in Action and Support. These would equip the corporate world to neatly slot in their efforts to limit global warming to below 2°C and drive towards a sustainable and water-secure future.

2017 Key Findings

In 2017, **51** Indian companies responded to the CDP Climate Change questionnaire, of which 43 were among BSE Top 200 companies and three from other benchmark samples to whom CDP had sent information requests. In addition, another five companies came forward on their own volition to disclose their climate impact to CDP; these are referred to as Self-Selected Companies (SSC) in the report. The total reported emissions from 51 companies across samples is 275.92 million tonne CO_2e ($MtCO_2$e). Multinational companies, eight of those that have operations in India chose to include their India emissions as part of their global submissions.

CDP India Leader 2017	
Infosys Limited	A
Rising Stars	
Dr. Reddy's Laboratories	A–
Essar Oil	A–
Godrej Consumer Products	A–
Tata Consultancy Services	A–
Tech Mahindra	A–
IndusInd Bank	A–
ITC Limited	A–

India Emissions Snapshot

Emission's scope	2017
Scope 1	259.39 $MtCO_2$e
Scope 2	16.53 $MtCO_2$*
Total footprint (Scope 1+2)	275.92 $MtCO_2$e
Number of responding companies (Investor sample+SSC)	51

*Scope 2 emissions are reported using location-based method.

As the fastest growing economy in the world, India is being viewed as a test case for the enablement of a low-carbon and sustainable future. Increasingly, climate risk is being viewed as the world's biggest market failure and one that needs an urgent remedy. The world's largest investors, such as Blackrock and Vanguard as well as long-term pension funds are pushing companies to disclose their climate risk. In order to attract the increasing amount of global capital that considers climate change in its investment criteria, India Inc. needs to be proactive in embracing a low-carbon future. Currently, India is the third largest greenhouse gas (GHG) emitter accounting for 6.65%[6] of the global emissions and is projected to witness an increase of over 85%[7] by 2030 under a business-as-usual scenario.

CDP is happy to report that so far the responding companies have shown tremendous resolve in measuring, managing, disclosing and evaluating their climate performance. Although greater efforts in growing the universe of responding companies is required.

Targets and Initiatives

With 84% of the respondents reporting one or more types of emissions reduction targets and initiatives in 2017, companies are definitely boosting the country's clean energy ambition.

43 companies have targets around reducing emission intensity or absolute emissions or increasing renewable energy consumption

1 in 3 companies have set a target related to renewable energy

1 in 4 companies have a target for renewable energy consumption by 2020 or beyond

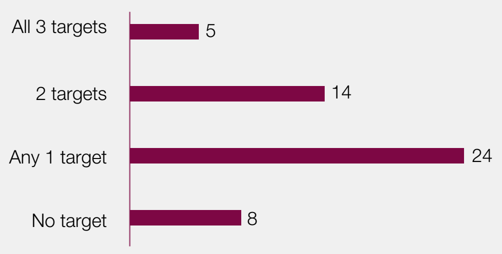
Emissions reduction targets

In 2017, 43 out of 51 respondents reported at least one emissions reduction target. These targets are categorized into 3 types – Absolute target; Intensity target; Renewable energy consumption and/or production target.

The following chart reveals how many companies have set one or more emissions reduction targets-

Figure 2: Number of companies setting emissions reduction targets

Absolute/Intensity/Renewable energy production and/or consumption



6 http://www.wri.org/blog/2017/04/interactive-chart-explains-worlds-top-10-emitters-and-how-theyve-changed

7 https://www.c2es.org/international/key-country-policies/india

Renewable energy targets

In 2017, 19 companies committed to renewable energy production and consumption targets. Three Indian companies – Infosys Limited, Tata Motors Limited and Dalmia Cement (Bharat) Limited have committed to 100% renewable power and joined the RE100[8] campaign, led by The Climate Group in partnership with CDP. The RE100 is a global, collaborative initiative uniting influential businesses committed to using 100% renewable electricity. India's 2022 renewable energy goal of generating 175 GW has been a stimulus for businesses to adopt a forward-looking approach while setting their energy production and consumption targets. Increased investments, capacity enhancement and optimized energy performance by businesses are being reported as major enablers to help India achieve its ambitious clean energy future.

Complementing India's renewable energy targets, businesses are executing a two-pronged strategy to optimize their overall energy performance –

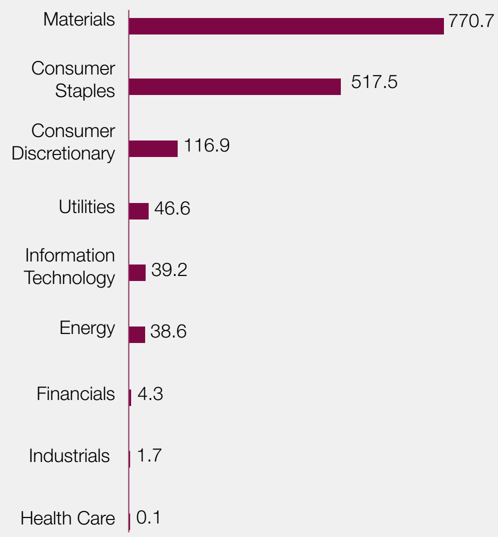
- Continual investments to finance renewable energy production to meet the growing clean energy demands;
- Implement institutional structures and integrated planning approaches required to foster an ecosystem for sustaining the renewable energy production.

Recently, record low solar and wind power tariffs in latest biddings have added a positive dimension to the renewable sector in India. Bidders quoted a price of INR 3.46 per KW[9] in a latest auction for wind power, the first of its kind in India. Solar power tariffs have dropped to a record low of INR 2.62 per unit[10] in the auction conducted for the 250 MW Bhadla Solar Park in Rajasthan. **The emerging market dynamics in India are positioning renewable energy as a competitive energy source.**

Indian corporates have now embarked on renewable electricity production such that they are set to meet a substantial portion of their electricity requirements. The total reported captive renewable electricity consumption has increased as compared to previous year. This demonstrates the growing interest towards sourcing renewable energy by businesses.

Figure 3: Year-on-Year captive renewable electricity consumption (GWh)

Figure 4: 2017 Sectoral captive RE consumption (GWh)



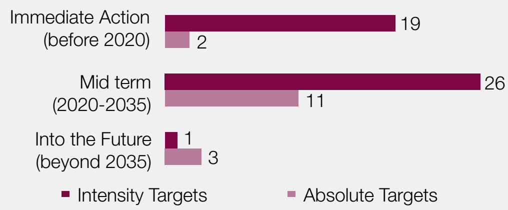
Top three sectors in terms of captive renewable electricity consumption are Materials, Consumer Staples and Consumer Discretionary, together contributing 92% share in overall captive renewable electricity consumption reported by companies. There are 10 companies from these sectors with renewable electricity targets in place.

Timeline of targets

Short-term targets are an important first step in climate change mitigation strategy. However, for effective reduction of GHGs, it is essential to have medium and long-term targets and strategies in place which will enable gradual transition to a low-carbon and carbon neutral business in the future. The Paris Agreement also sets a long-term goal for carbon neutrality which is "to achieve a balance between anthropogenic emissions by sources and removals by sinks of GHG by the second half of this century".

Responsible corporations have started focusing their attention towards medium-term (2020 and beyond) and long-term (2035 and beyond) targets for renewable energy and energy efficiency priorities.

Figure 5: Number of targets and their years set by companies in 2017



8 http://there100.org/

9 https://www.bloomberg.com/news/articles/2017-02-24/wind-power-costs-plunge-in-asia-s-first-auction-for-contracts

10 http://economictimes.indiatimes.com/industry/energy/power/solar-power-tariff-drops-to-historic-low-at-rs-2-44-per-unit/articleshow/58649942.cms

Science-based targets

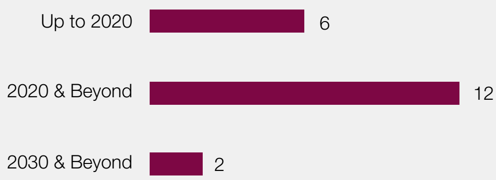
Four of the responding companies, **Wipro, Tech Mahindra, Hindustan Zinc and Mahindra Sanyo Steel** have committed to the Science Based Target initiative (SBTi) to set GHG emissions reduction targets in accordance with climate science, i.e. in line with the level of decarbonization required to keep global temperature increase below 2°C compared to pre-industrial temperatures. Wipro is developing their targets for the years 2025 and 2030 covering both Scope 1 and Scope 2 emissions. Tech Mahindra is developing a five-year roadmap for emission reductions as well as a long-term target for 2050. Mahindra Sanyo Steel and Hindustan Zinc have recently committed in March and July respectively and currently preparing to develop their targets.

There has been an increase in the number of companies setting mid-term (2020-2035) absolute and intensity targets in 2017, targets covering approximately 98% of the Scope 1 and 2 emissions. The trends indicate a significant proportion of energy-intensive sectors especially manufacturing companies followed by technology and heavy-metal majors showing a higher share of mid-term absolute and intensity targets.

Figure 6: Year-on-Year comparison of target years for number of absolute and intensity targets

In terms of renewable energy targets, five companies have indicated a total of six short-term targets (up to 2020) including initiatives like procurement or production of renewable energy to meet the current demands, reduce energy demands and enhance the operational efficiencies of the business ecosystem. Two companies have reported on a long-term vision for renewable energy targets (2030 and beyond).

Figure 7: Number of renewable energy targets based on target year



The year-on-year trend depicts a continual increase in the renewable energy consumption or production targets (with target year 2020 and beyond) set forth by companies i.e. from 9 in 2016 to 12 in 2017.

Figure 8: Year-on-Year comparison of RE targets for mid term (2020 & beyond)

Emissions reduction (ER) initiatives

Fuelled by a steady rise in emissions reduction initiatives adopted by companies, India is gradually being positioned on the global stage as an enabler of the low-carbon transition. In its NDC, the government has committed to the goal of receiving 40%[11] of its power from renewable resources by 2030 and to reduce the emissions intensity of GDP by 33%-35%, by 2030.

While the Government is introducing several innovative policy measures to drive energy efficiency, multiple stakeholders perceive this as a shared journey to bring about a radical change. The 2017 data indicates that Indian corporates too are demonstrating increased commitments towards undertaking emission reduction initiatives.

Figure 9: Widely used emissions reduction initiatives

Operational Efficiency

Common interventions employed by large manufacturing industries include chiller optimization, flue gas recovery, waste heat recovery, pre-heating of fuel and installation of variable frequency drives on pumping systems

Sustainable Built Environment

Integrated end-to-end smart and sustainable building development initiatives have been seen in services, technology, financial and retail sectors. Initiatives include interventions in building materials (efficient building design) and building services

Low-carbon Energy Installations

Common interventions include low-energy consuming installations, rapid mass transit system and innovative automation solutions.

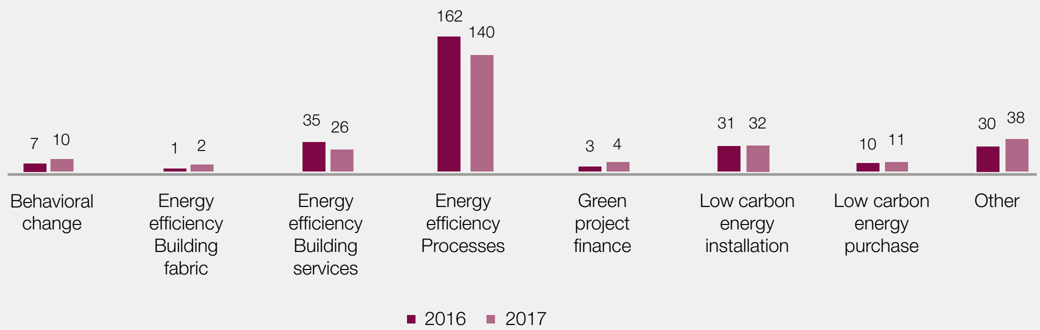
End-to-end Energy Strategy

Companies are amalgamating carbon emission reduction targets with energy efficiency measures at both operational and strategic levels. The key objective of these initiatives is to enhance the overall energy performance of the business across the entire value chain.

Process Energy Efficiency still ranks the foremost choice among emission reduction activities. Process heating is a vital aspect of nearly all manufacturing processes where substantial amount of energy is required for producing basic materials and commodities. The reporting profile indicates majority of manufacturing businesses; hence process energy efficiency measures is one of the foremost areas that have been targeted to reduce the overall footprint.

The figure below shows slight increase year-on-year for energy efficiency-building fabric, behavioural change, low carbon energy installation and purchase and green project finance initiatives. The fundamental nature of these initiatives could be an outcome of the future-forward strategies that businesses are now adopting to meet their mid-term low-carbon goals. By doing so, they are attempting to enhance the overall climate performance at every stage of the asset lifecycle. Other initiatives like fugitive emission reduction, process emission reduction, and transportation fleet are slowly gaining momentum as well.

Figure 10: Year-on-Year change in ER initiatives



11 Per the India Energy Statistics 2017, Ministry of Statistics and Programme Implementation – As of March 2016, renewable sources (excluding hydro) accounted for 12.62% of the total installed power capacity

> Companies are increasingly adopting internal price on carbon. A growing trend is being seen. The number has increased from 2 in 2015 to 8 in 2016 and 11 in 2017.

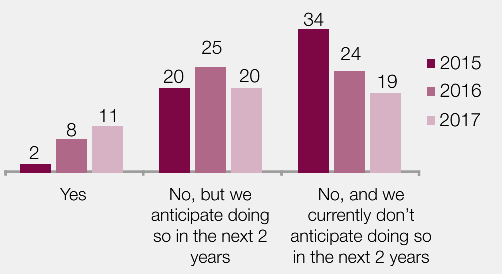
Trendsetters in ICP

Mahindra & Mahindra and **Infosys Limited** are the first few trendsetters from India who are committing to invest in technologies that reduce the overall climate footprint of the business in its journey towards carbon neutrality. By deploying internationally recognized business tools, these market leaders are exchanging best practices with peer groups interested in embracing carbon pricing as an ambitious tool for climate action.

Internal Carbon Pricing (ICP)

The global market dynamics show a steady rise in the number of companies taking advantage of low-carbon investment opportunities while managing carbon risks.

Figure 11: Year-on-Year ICP statistics



In 2017, 31 out of 51 reporting companies have an internal price on carbon or intend to put one in place within the next two years. An internal price on carbon helps in driving investments away from carbon intensive alternatives towards carbon neutrality and science-based targets.

Risks and Opportunities

CDP puts emphasis on the process of identifying and prioritising risks and opportunities and asks companies to identify and describe those which have the potential to generate a substantive change in their business operations, revenue or expenditure. There are several drivers under the three broad categories of risks and opportunities- Regulatory, Physical and Reputational; and responses received from companies on all the categories have been analysed on the following parameters: Impact (Direct/ Indirect); Likelihood[12] and Magnitude[13]. The resultant is the ranking of risks and opportunities which is shown in the following schematic with the top drivers of risks and opportunities due to climate change reported by companies[14].

Figure 12: Top 3 Regulatory risks & opportunities

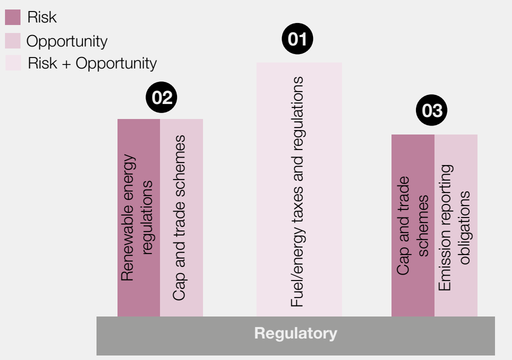


Figure 13: Top 3 Physical risks & opportunities

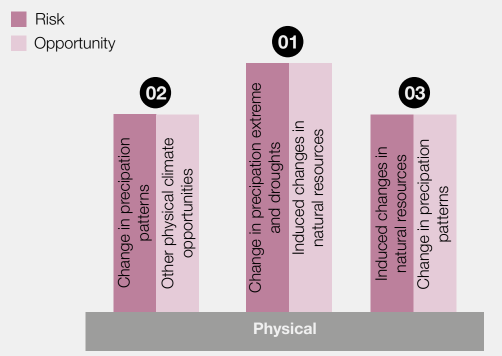
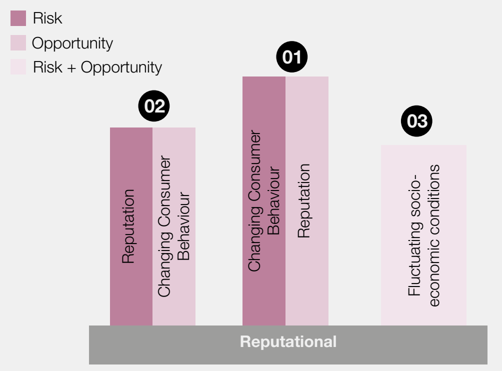
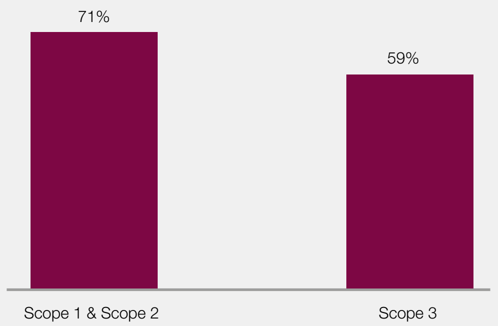


Figure 14: Top 3 Reputational risks & opportunities



Verification & Assurance

Figure 15: Percentage of companies verifying emissions



Third party verification of GHG emissions is an important component of the CDP Climate Change response. Third party verification of GHG data provides key stakeholders some level of confidence on the GHG data reported by companies on public platforms such as the CDP. Indian companies continue to ensure the quality of data that they put out in the public domain, as demonstrated in the figure above. 36 responding companies have third party verification of their Scope 1 and Scope 2 GHG emissions and 30 responding companies have third party verification of their Scope 3 emissions.

12 The likelihood terms are: Virtually certain (greater than 99% probability); Very likely (greater than 90% probability); Likely (greater than 66% probability); More likely than not (greater than 50% probability); About as likely as not (between 33% and 66% probability); Unlikely (less than 33% probability); Very unlikely (less than 10%); Exceptionally unlikely (less than 1% probability); Unknown.

13 Qualitative scale of high, medium-high, medium, low-medium, low and unknown.

14 For further information on risks and opportunities drivers, please refer to Page number 70 of CDP 2017 Guidance Document.

Commit to action

Commit to action is a central platform, provided by CDP as a part of We Mean Business campaign, where companies are committing to bold climate action through any or all of the initiatives mentioned below. These companies have already recognised that climate change brings significant opportunities to their business and transition to a low-carbon economy is the only way to secure their sustainable and prosperous future

Set Science-Based Targets

Adopt science-based emission reduction target aligning corporate GHG reductions with global emissions budgets generated by climate models

Removing short lived pollutants

Commit to pragmatic and cost-effective measures that are available to target emissions in key sectors

Remove deforestation from supply chain

Commit to removing commodity driven deforestation from supply chains and to using low carbon technologies

Price on carbon

Carbon pricing systems encourage innovation and help ensure sustained economic competitiveness

Mainstream climate reporting

Commit to report climate change information in mainstream reports as fiduciary duty

Technology Partnerships

WBCSD's Low carbon technology partnership initiative

Improving energy productivity

Commit to improving energy productivity, doubling output in quantified, time-bound targets.

Responsible corporate management

Commit to responsible corporate engagement in climate policy

Energy

Commit to using 100% renewable power or improving energy productivity

Water

Commit to improve water security

Below 50

Grow the global market for the world's most sustainable fuels – that is fuels producing at least 50% less CO_2 emissions than conventional fossil fuels.

For further information, please refer to

https:\\www.cdp.net/commit

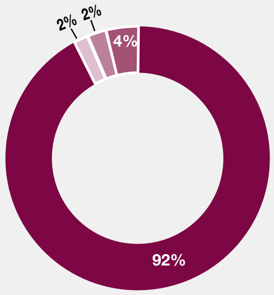
Is India Inc. ready to adopt the TCFD recommendations?

The TCFD recommendations can be adopted by all organizations. They endorse climate-related financial disclosures in mainstream financial filings and are designed to solicit decision-useful, forward-looking information on financial impacts. TCFD focuses on risks and opportunities related to transition to a lower-carbon economy.

The core elements of recommended climate-related financial disclosures (Governance, Strategy, Risk Management and Metrics & Targets) align closely with CDP's disclosure questionnaire and hence, companies already disclosing to CDP are in a better position to adopt the TCFD recommendations more easily and earlier than their peers. The responses received from companies this year have been analysed with a view to sense their readiness and the results are promising.

Governance: The TCFD recommends that companies should disclose the organization's governance around climate related risks and opportunities and describe board's oversight of the management's role in the same. In 2017, 47 of the companies responding to CDP have climate change responsibility at the Board level or at a sub-set level of the Board. This indicates that climate change is getting mainstreamed and getting the attention and support from top management.

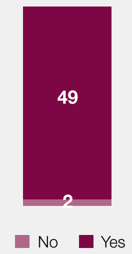
Figure 16: Level of direct responsibility for Climate change



Strategy: The TCFD recommends that companies should disclose the actual and potential impacts of climate related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material. These should be identified over the short, medium, and long term taking into consideration different climate related scenarios, including a 2°C or lower scenario.

In 2017, 49 of the 51 responding companies have integrated climate change into their business strategy as part of their sustainability roadmap.

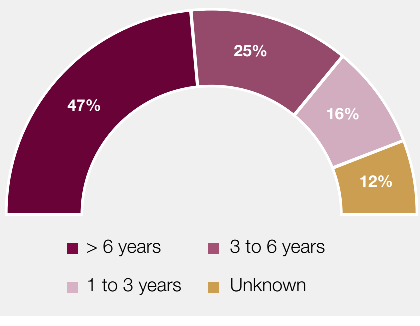
Figure 17: Number of companies integrating climate change into business strategy



Risk Management: The TCFD recommends that companies disclose how the organization identifies, assesses, and manages climate related risks and how the processes for these are integrated in the business strategy.

Companies are planning around risk mitigation for their business and strategizing for longer timeframes. 24 of the responding companies have considered climate change related risks for 6 years and beyond while 13 companies have considered for 3-6 years.

Figure 18: Risk management foresight



Metrics and Targets

The TCFD recommends that companies should disclose the metrics and targets used to assess and manage relevant climate related risks and opportunities where such information is material. Organizations should consider including metrics on climate-related risks associated with water, energy, land use, and waste management where relevant and applicable, as well as internal carbon prices and climate related opportunity metrics such as revenue from low-carbon products and services.

2017 responses show that companies are increasingly looking at committing to reducing their carbon footprint through: energy efficiencies, increasing renewable energy share or through fuel switch; working towards a circular economy, rainwater harvesting, watershed management, responsible sourcing or reducing waste to landfill. Responding companies are disclosing their Scope 1, 2 & 3 emissions as well as Absolute and Intensity targets covering these scopes. Although, scenario analysis is still at nascent stage and needs to be integrated into risk assessment, yet several companies are gradually taking up internal carbon pricing and science-based emission targets.

The Future

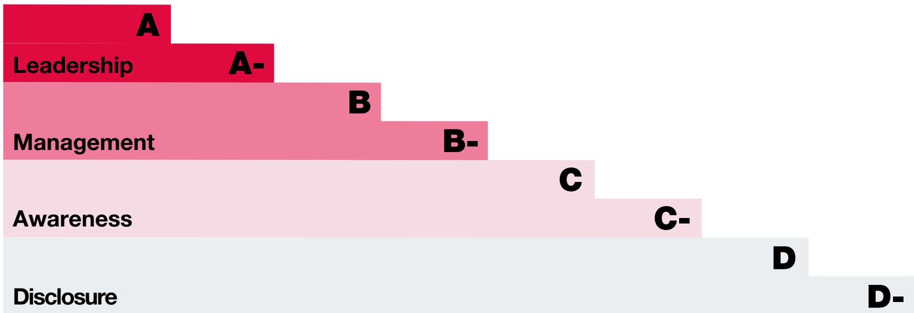
In a world buffeted by hurricanes, floods, drought, extreme heat and debilitating water shortages, companies are increasingly being called up to take action. Governments are considering radical and unprecedented actions like India aims to become 100% e-vehicle nation by 2030 which has thrown the auto industry in whirl of activity. Experts are already examining implications on electricity generation and renewable targets along with energy storage options. Think tanks are looking at the feasibility of increasing India's renewable target from 175 GW to 400 GW by 2030. Other more deliberate steps like widening and deepening of the 'Perform, Achieve & Trade' scheme will give further fillip to energy efficiency while demanding increased efforts from carbon intensive sectors.

With newer forms of carbon markets and products coming to fore, those who prepare for a carbon constrained world will reap the benefits. National governments have pledged NDCs and are working on operational plans to address climate change while global investors are calling on companies to commit to deeper actions that accelerate a shift away from business-as-usual scenarios. CDP helps companies chart a course that fulfils both these requirements.

Appendix I

Scoring: a measure of a company's environmental performance

Scoring at CDP is mission-driven, focusing on CDP's principles and values for a sustainable economy and as such scores are a tool to communicate the progress companies have made in addressing environmental issues, and highlighting where risks may be unmanaged. CDP has developed an intuitive approach to presenting scores that highlight a company's progress towards leadership using a 4 step approach: **Disclosure** which measures the completeness of the company's response; **Awareness** which intends to measure the extent to which the company has assessed environmental issues, risks and impacts in relation to its business; **Management** which is a measure of the extent to which the company has implemented actions, policies and strategies to address environmental issues; and **Leadership** which looks for particular steps a company has taken which represent best practice in the field of environmental management.



Leadership	80-100%	A
	0-79%	A-
Management	45-79%	B
	0-44%	B-
Awareness	45-79%	C
	0-44%	C-
Disclosure	45-79%	D
	0-44%	D-

F = Failure to provide sufficient information to CDP to be evaluated for this purpose [15]

The scoring methodology clearly outlines how many points are allocated for each question and at the end of scoring, the number of points a company has been awarded per level is divided by the maximum number that could have been awarded. The fraction is then converted to a percentage by multiplying by 100. A minimum score of 80% [16], and/or the presence of a minimum number of indicators on one level will be required in order to be assessed on the next level. If the minimum score threshold is not achieved, the company will not be scored on the next level.

The final letter grade is awarded based on the score obtained in the highest achieved level. For example, Company XYZ achieved 88% in Disclosure level, 82% in Awareness and 65% in Management will receive a B. If a company obtains less than 44% in its highest achieved level (with the exception of Leadership), its letter score will have a minus. For example, Company 123 achieved 81% in Disclosure level and 42% in Awareness level resulting in a C-. However, a company must achieve over 80% in Leadership to be eligible for an A and thus be part of the A List. Furthermore, in order for a company to be eligible for inclusion in the A List it must not have reported any significant exclusions in emissions and have at least 70% of its scope 1 and scope 2 emissions verified by a third party verifier using one of the accepted verification standards as outlined in the scoring methodology.

Public scores are available in CDP reports, through Bloomberg terminals, Google Finance and Deutsche Boerse's website. CDP operates a strict conflict of interest policy with regards to scoring and this can be viewed at https://www.cdp.net/scoring-confict-of-interest

Future of Scoring

As part of its 'Reimagining Disclosure' initiative, CDP developed a series of sector-specific questionnaires integrating the recommendations by the Financial Stability Board's Task Force on Climate-related Financial Disclosure (TCFD) and stakeholder feedback collected via two rounds of consultations. Each sector questionnaire will have a corresponding sector-specific scoring methodology which will be released in the first quarter of 2018.

15 Not all companies requested to respond to CDP do so. Companies who are requested to disclose their data and fail to do so, or fail to provide sufficient information to CDP to be evaluated will receive an F. An F does not indicate a failure in environmental stewardship.

16 CDP's methodology aims to incentivize continuous improvements as reflected by the state of the market and the improvement of scientific knowledge around the environmental issues it evaluates. The methodology thus evolves over time and the weight of some questions might change or some previously unscored questions might start being scored. As part of these improvements for 2017 scoring, CDP has modified the thresholds from last year.

Appendix II
2017 Key Trends

The statistics presented in this key trends table may differ from those in other CDP reports for two reasons: (1) the data in this table is based on all responses received by 1 September 2017; (2) it is based on binary data (e.g. Yes/No or other drop down menu selection) reported to CDP and does not incorporate any validation of the follow up information provided or reflect the scoring methodology. The latter, in particular, is likely to lead to an over-reporting of data in this key trends table.

Statistic	Hong Kong & SE Asia	Australia ASX 200	Benelux	Brazil	Canada	Central Eastern Europe	China	DACH (DE, AU, CH)	Emerging Markets
Number of companies in the sample	170	199	150	120	200	100	100	350	800
Number of companies answering CDP 2017[17]	69	75	62	52	99	17	12	151	282
% sample answering CDP 2017[17]	41	38	41	43	50	17	12	43	35
% of sample market capitalization answering CDP 2017[22]	57	82	86	71	73	26	28	85	44
% of responders reporting Board or other senior management responsibility for climate change	98	100	98	98	93	50	92	96	98
% of responders with incentives for the management of climate change issues	78	77	80	74	77	38	58	76	85
% of responders reporting climate change as being integrated into their business strategy	98	89	93	92	91	88	100	87	98
% of responders reporting engagement with policymakers on climate issues to encourage mitigation or adaptation	95	91	82	96	90	63	83	85	96
% of responders with emissions reduction targets[18]	80	65	82	76	63	50	50	79	84
% of responders reporting absolute emissions reduction targets[18]	56	39	50	50	35	38	25	47	48
% of responders reporting intensity emissions reduction targets[18]	45	36	50	44	38	38	25	52	57
% of responders reporting active emissions reduction initiatives in the reporting year	97	93	91	88	88	63	83	92	96
% of responders indicating that their products and services directly enable third parties to avoid GHG emissions	64	65	79	72	59	50	75	65	75
% of responders whose absolute emissions (Scope 1 and 2) have decreased compared to last year due to emissions reduction activities	47	61	66	44	57	38	17	66	62
% of responders seeing regulatory risks	86	88	82	90	85	88	75	77	94
% of responders seeing regulatory opportunities	84	85	79	90	77	63	83	81	91
% of responders seeing physical risks	88	87	79	90	79	75	50	74	92
% of responders seeing physical opportunities	70	77	61	78	58	63	33	67	81
% of responders independently verifying any portion of Scope 1 emissions data[19]	58	59	57	66	46	38	17	57	73
% of responders independently verifying any portion of Scope 2 emissions data[19]	58	60	50	68	35	25	17	51	72
% of responders independently verifying least 70% of Scope 1 emissions data[19]	48	51	48	64	36	25	17	54	67
% of responders independently verifying least 70% of Scope 2 emissions data[19]	50	51	46	60	30	25	17	49	62
% of responders reporting Scope 2 location-based emissions data	88	99	84	90	93	100	50	85	93
% of responders reporting Scope 2 market-based emissions data	20	36	64	44	34	50	17	64	35
% of responders reporting emissions data for 2 or more named Scope 3 categories[20]	42	68	64	86	51	38	33	68	73
% of responders using CDSB framework to report climate change data in mainstream financial report	9	19	18	18	9	0	17	13	19

17 This statistic includes those companies that respond by referencing a parent or holding company's response. However the remaining statistics presented do not include these responses.

18 Companies may report multiple targets. However, in these statistics a company will only be counted once.

19 This takes into account companies reporting that verification is complete or underway, but does not include any evaluation of the verification statement provided.

20 Only companies reporting Scope 3 emissions using the Greenhouse Gas Protocol Scope 3 Standard named categories have been included below. Whilst in some cases "Other upstream" or "Other downstream" are legitimate selections, in most circumstances the data contained in these categories should be allocated to one of the named categories. In addition, only those categories for which emissions figures have been provided have been included.

21 Includes responses across all samples as well as responses submitted by companies not included in specific geographic or industry samples in 2017.

22 This refers to the total market capitalization of that sample group of companies, as of Q2 2017. Market cap data sourced from Bloomberg.

Euro 300	France	Iberia (ES, PT)	India	Ireland	Italy	Japan	Korea	Latin America	New Zealand NZX 50	Nordic	Portugal	Russia	South Africa	Spain	Turkey	United Kingdom	US S&P 500	Overall Figure[5]
300	250	125	200	30	100	500	200	80	50	260	40	40	100	85	100	304	500	N/A
258	100	58	46	11	44	281	52	27	14	151	8	12	74	50	41	202	338	2235
86	40	46	23	37	44	56	26	34	28	58	20	30	74	59	41	66	68	N/A
91	82	93	39	75	70	77	63	48	82	79	73	38	83	94	54	90	78	51
100	97	100	100	100	98	97	96	100	93	97	100	92	99	100	95	99	94	97
92	84	91	83	73	86	88	96	76	71	70	86	75	87	92	82	85	85	81
97	98	95	98	100	98	96	96	92	93	91	100	83	99	94	89	93	93	93
94	88	95	95	100	93	94	94	92	86	82	100	75	96	94	84	87	88	89
96	88	93	85	73	86	96	94	64	79	80	100	58	82	92	76	81	82	81
58	44	73	22	36	74	62	69	32	64	38	71	25	44	73	34	41	51	48
71	67	59	76	36	60	72	52	40	29	63	71	42	50	57	63	59	45	55
98	98	96	100	100	100	97	94	100	86	89	100	83	96	96	82	95	96	93
79	81	77	68	64	81	80	75	64	36	71	71	67	57	78	61	57	61	67
82	72	82	49	73	86	78	77	52	71	64	86	33	78	82	66	72	74	87
93	87	96	95	91	95	95	96	92	93	89	100	67	99	96	89	95	85	89
96	89	93	95	91	95	93	96	80	86	87	100	42	94	92	82	92	84	87
93	88	88	93	100	86	91	88	96	93	83	100	75	97	86	87	90	84	85
85	71	82	85	91	76	87	87	60	79	77	86	42	90	82	74	79	68	74
89	92	80	71	82	81	57	83	64	43	60	100	8	85	78	61	71	61	64
87	91	77	71	82	76	57	83	64	36	55	100	8	84	73	58	70	58	61
86	82	80	68	73	76	48	75	56	36	57	100	8	79	78	61	67	57	57
84	76	71	61	82	76	44	63	40	21	51	100	8	75	67	58	65	55	53
94	97	84	95	91	95	70	92	92	79	88	100	67	100	82	82	98	96	89
72	44	61	27	64	64	64	31	44	29	66	100	8	62	55	42	55	61	51
88	83	82	71	73	71	82	81	80	64	69	100	8	91	80	68	70	68	69
25	21	23	24	0	5	10	35	24	14	17	29	0	32	22	5	27	6	15

Appendix III

Table of emissions, scores and sector by company

GICS Sector	Company Name	Sample	2017 Score Band	2017 Permission status	Scope 1 (tons CO_2e)	Scope 2 - Location-Based (tons CO_2e)	Scope 2 - Market-Based (tons CO_2e)	Scope 3 (tons CO_2e)	Number of Scope 3 categories reported
Consumer Discretionary	ARVIND Ltd	BSE Top 200	C	Public	346,255	332,531	332,531		
	Bharat Forge	BSE Top 200	D	Public	75,000	175,000		50	1
	Indian Hotels Co.	BSE Top 200	C	Public	46,133	179,752		6,630	1
	Mahindra & Mahindra	BSE Top 200	B	Public	35,843	158,185		6,467,786	7
	Symphony Ltd	BSE Top 200		Not public					
	Tata Motors	BSE Top 200	B	Public	68,042	356,816	317,836	3,275,634	7
	Titan Company	BSE Top 200		Not public					
	Welspun India Ltd	BSE Top 200		Public	240,299	624,700			
	JK Tyres& Industries	SSC	C	Public	206,105	160,958			
Consumer Staples	Godrej Consumer Products	BSE Top 200	A-	Public	32,400	27,579		34,638	3
	ITC Limited	BSE Top 200	A-	Public	1,023,307		173,657	240,247	6
Energy	Indian Oil Corporation	BSE Top 200	C	Public	15,883,322	74,438			
	Essar Oil	Benchmark Sample	A-	Public	6,328,772	2,976		2,262	3
Financials	Axis Bank	BSE Top 200	C	Public	7,687	137,777		10,427	3
	IDFC Bank Ltd	BSE Top 200	C	Public	190	7,399		5,818	3
	IndusInd Bank	BSE Top 200	A-	Public	5,938	51,141		5,132	3
	Kotak Mahindra Bank	BSE Top 200	C	Public	139	21,636		21,859	3
	Mahindra & Mahindra Financial Services	BSE Top 200	B	Public	125	2,203		512	2
	State Bank of India	BSE Top 200	D	Public		1,165,662			
	YES BANK Limited	BSE Top 200	B	Public	2,292	34,226		2,642	1
	Mahindra Lifespace Developers Limited	SSC	B	Public	1,336	10,750		1,001	4
Health Care	Divi's Laboratories	BSE Top 200		Public	317,575	224,382			
	Dr. Reddy's Laboratories	BSE Top 200	A-	Public	154,808	306,000		371,572	3
	Piramal Enterprises	BSE Top 200		Public	32,027	86,502			

GICS Sector	Company Name	Sample	2017 Score Band	2017 Permission status	Scope 1 (tons CO_2e)	Scope 2 - Location-Based (tons CO_2e)	Scope 2 - Market-Based (tons CO_2e)	Scope 3 (tons CO_2e)	Number of Scope 3 categories reported
Industrials	Larsen & Toubro	BSE Top 200	C	Public	368,660	321,972		4,039,534	4
	Jubilant Life Sciences Ltd	Benchmark Sample	D	Public	717,484	134,897			
	CG Power and Industrial Solutions Limited	SSC		Not public	-	-		-	-
	Godrej Interio Division-Godrej & Boyce Mfg. Co.Ltd.	SSC	D	Public	4,553	10,372		2,102	4
Information Technology	Infosys Limited	BSE Top 200	A	Public	16,165	117,641	117,641	184,727	6
	Larsen & Toubro Infotech Ltd	BSE Top 200	D	Public	638	29,576			
	Mindtree Ltd	BSE Top 200		Not public	-	-	-	-	-
	Tata Consultancy Services	BSE Top 200	A-	Public	38,360	467,733	432,160	642,160	7
	Tech Mahindra	BSE Top 200	A-	Public	3,263	119,434		54,029	4
	Wipro	BSE Top 200	B	Public	26,177	228,587		405,067	5
Materials	ACC	BSE Top 200	B	Public	14,859,261	550,807	462,167	581,399	4
	Ambuja Cements	BSE Top 200	B	Public	13,543,643	883,894		2,086,540	6
	Dalmia Bharat Ltd	BSE Top 200	B	Public	9,236,133	373,646		5,783,223	9
	Godrej Industries	BSE Top 200	B	Public	39,587	39,556		7,438	2
	Hindustan Zinc	BSE Top 200	B	Public	4,288,645	114,246		2,776,909	9
	JSW Steel	BSE Top 200	C	Public	35,650,839	906,920		3,213,266	2
	NMDC	BSE Top 200		Not public	-	-		-	-
	Shree Cement	BSE Top 200	B	Public	12,869,390	181,574		124,652	6
	Tata Chemicals	BSE Top 200	B	Public	4,839,399	64,885	215,372	417,864	6
	Tata Steel	BSE Top 200	B	Public	38,757,404	3,979,124		27,491,043	11
	Ultratech Cement	BSE Top 200	C	Public	32,774,441	715,964		4,510,396	4
	Essar Steel Limited	Benchmark Sample	D	Public	8,561,248	2,210,176		1,747,749	1
	Mahindra Sanyo Special Steel Pvt. Ltd	SSC	C	Public	40,080	124,435	124,435	1,499	4
Telecommuni-cation Services	Tata Communi-cations	BSE Top 200	C	Public	21,179	479,231		141	2
Utilities	GAIL	BSE Top 200	C	Public	3,221,814	185,526		35,475	1
	JSW Energy	BSE Top 200	C	Public	17,829,347	2			
	Tata Power Co	BSE Top 200	C	Public	36,754,936	15,467		2,579	1

Appendix IV
CDP India 200 Sample Response status

Sample is based on average annual market capitalisation listed on Bombay Stock Exchange (BSE), known as BSE Top 200

GICS Sector	Company Name	2017 Response Status
Consumer Discretionary	ARVIND Ltd	AQ*
	Bharat Forge	AQ*
	Indian Hotels Co.	AQ*
	Mahindra & Mahindra	AQ*
	Symphony Ltd	AQ*
	Tata Motors	AQ*
	Titan Company	AQ*
	Welspun India Ltd	AQ*
	Endurance Technologies Ltd	DP
	Motherson Sumi Systems Ltd	DP
	MRF LTD	DP
	Aditya Birla Fashion and Retail Ltd	NR
	APOLLO TYRES LTD	NR
	Bajaj Auto Ltd	NR
	Bosch Ltd	NR
	Crompton Greaves Consumer Electricals Ltd	NR
	Dish TV India Ltd	NR
	Exide Industries Ltd	NR
	Hero Motocorp Ltd	NR
	Maruti Suzuki India Ltd	NR
	Page Industries Ltd	NR
	Rajesh Exports Ltd	NR
	Sun TV Network Ltd	NR
	Tube Investments of India Ltd	NR
	TVS Motor Company Ltd	NR
	WABCO India Ltd	NR
	Whirlpool of India Ltd	NR
	Zee Entertainment Enterprises Ltd	NR
Consumer Staples	Godrej Consumer Products	AQ*
	ITC Limited	AQ*
	Hindustan Unilever Ltd	SA
	Nestle India Ltd	SA
	Britannia Industries Ltd	NR
	Colgate Palmolive (India) Ltd	NR
	Dabur India Ltd	NR
	Emami Ltd	NR
	Gillette India Ltd	NR
	GlaxoSmithkline Consumer Healthcare Ltd	NR
	Marico Ltd	NR
	Procter & Gamble Hygiene and Health Care Ltd	NR
	Tata Global Beverages Ltd	NR
	United Breweries Ltd	NR
	United Spirits Ltd	NR
	Varun Beverages Ltd	NR

GICS Sector	Company Name	2017 Response Status
Energy	Indian Oil Corporation	AQ*
	Bharat Petroleum Corporation Ltd	NR
	Cairn India Ltd	NR
	Coal India Ltd	NR
	Hindustan Petroleum Corporation Ltd	NR
	Mangalore Refinery and Petrochemicals Ltd	NR
	Oil & Natural Gas Corporation Ltd	NR
	Oil India Ltd	NR
	Petronet LNG Ltd	NR
	Reliance Industries Ltd	NR
Financials	Axis Bank	AQ*
	IDFC Bank Ltd	AQ*
	IndusInd Bank	AQ*
	Kotak Mahindra Bank	AQ*
	Mahindra & Mahindra Financial Services	AQ*
	State Bank of India	AQ*
	YES BANK Limited	AQ*
	DLF Ltd	DP
	HDFC Bank Ltd	DP
	IDBI Bank Ltd	DP
	IDFC Ltd	DP
	Bajaj Finance Ltd	NR
	Bajaj Finserv Ltd	NR
	Bajaj Holdings & Investment Ltd	NR
	Bank of Baroda	NR
	Bank of India	NR
	Bharat Financial Inclusion Ltd	NR
	Canara Bank	NR
	Central Bank of India	NR
	Cholamandalam Investment and Finance Company Ltd	NR
	CRISIL LTD	NR
	Federal Bank Ltd	NR
	Gruh Finance Ltd	NR
	Housing Development Finance Corporation Ltd	NR
	ICICI Bank Ltd	NR
	ICICI Prudential Life Insurance Company Ltd	NR
	Indiabulls Housing Finance Ltd	NR
	L&T Finance Holdings Ltd	NR
	LIC Housing Finance Ltd	NR
	Max Financial Services Ltd	NR
	Muthoot Finance Ltd	NR
	Oberoi Realty Ltd	NR
	PNB Housing Finance Ltd	NR

GICS Sector	Company Name	2017 Response Status
	Power Finance Corporation Ltd	NR
	Punjab National Bank	NR
	RBL Bank Ltd	NR
	Reliance Capital Ltd	NR
	Rural Electrification Corporation Ltd	NR
	Shriram City Union Finance Ltd	NR
	Shriram Transport Finance Company Ltd	NR
	Sundaram Finance Ltd	NR
	Union Bank of India	NR
Health Care	Divi's Laboratories	AQ*
	Dr. Reddy's Laboratories	AQ*
	Piramal Enterprises	AQ*
	Abbott India Ltd	SA
	Aurobindo Pharma Ltd	DP
	Sun Pharmaceutical Industries Ltd	DP
	Syngene International Ltd	DP
	Ajanta Pharma Ltd	NR
	Alembic Pharmaceuticals Ltd	NR
	Alkem Laboratories Ltd	NR
	Apollo Hospitals Enterprise Ltd	NR
	Biocon Ltd	NR
	Cadila Healthcare Ltd	NR
	Cipla Ltd	NR
	GlaxoSmithKline Pharmaceuticals Ltd	NR
	Glenmark Pharmaceuticals Ltd	NR
	Lupin Ltd	NR
	Natco Pharma Ltd	NR
	Pfizer Ltd	NR
	Sanofi India Ltd	NR
	Strides Shasun Ltd	NR
	Torrent Pharmaceuticals Ltd	NR
	Wockhardt Ltd	NR
Industrials	Larsen & Toubro	AQ*
	Suzlon Energy Ltd	DP
	3M India Ltd	NR
	ABB India Ltd	NR
	Adani Enterprises Ltd	NR
	Adani Ports and Special Economic Zone Ltd	NR
	Aditya Birla Nuvo Ltd	NR
	AIA Engineering Ltd	NR
	Amara Raja Batteries Ltd	NR
	Ashok Leyland Ltd	NR
	Bharat Electronics Ltd	NR
	Bharat Heavy Electricals Ltd	NR
	Blue Dart Express Ltd	NR

GICS Sector	Company Name	2017 Response Status
	Container Corporation of India Ltd	NR
	Cummins India Ltd	NR
	Eicher Motors Ltd	NR
	GE T&D India Ltd	NR
	Havells India Ltd	NR
	InterGlobe Aviation Ltd	NR
	Kajaria Ceramics Ltd	NR
	L&T Technology Services Ltd	NR
	NBCC (India) Ltd	NR
	Siemens Ltd	NR
	Thermax Ltd	NR
	Voltas Ltd	NR
Information Technology	Infosys Limited	AQ*
	Larsen & Toubro Infotech Ltd	AQ*
	Mindtree Ltd	AQ*
	Tata Consultancy Services	AQ*
	Tech Mahindra	AQ*
	Wipro	AQ*
	Honeywell Automation India Ltd	SA
	HCL Technologies Ltd	DP
	Info Edge (India) Ltd	NR
	Mphasis Ltd	NR
	Oracle Financial Services Software Ltd	NR
	Vakrangee Ltd	NR
Materials	ACC	AQ*
	Ambuja Cements	AQ*
	Dalmia Bharat Ltd	AQ*
	Godrej Industries	AQ*
	Hindustan Zinc	AQ*
	JSW Steel	AQ*
	NMDC	AQ*
	Shree Cement	AQ*
	Tata Chemicals	AQ*
	Tata Steel	AQ*
	Ultratech Cement	AQ*
	Vedanta Ltd	SA
	Asian Paints Ltd	DP
	Grasim Industries Ltd	DP
	Kansai Nerolac Paints Ltd	DP
	Bayer CropScience Ltd	NR
	Berger Paints India Ltd	NR
	Castrol India Ltd	NR
	Hindalco Industries Ltd	NR
	National Aluminium Company Ltd	NR
	PI Industries Ltd	NR
	Pidilite Industries Ltd	NR
	Steel Authority of India Ltd	NR

GICS Sector	Company Name	2017 Response Status
	Supreme Industries Ltd	NR
	The Ramco Cements Ltd	NR
	UPL Ltd	NR
Telecommunication Services	Tata Communications	AQ*
	Bharti Airtel Ltd	NR
	Bharti Infratel Ltd	NR
	Idea Cellular Ltd	NR
	Reliance Communications Ltd	NR
Utilities	GAIL	AQ*
	JSW Energy	AQ*
	Tata Power Co	AQ*

GICS Sector	Company Name	2017 Response Status
	Adani Power Ltd	NR
	Indraprastha Gas Ltd	NR
	NHPC Ltd	NR
	NLC India Ltd	NR
	NTPC Ltd	NR
	Power Grid Corporation of India Ltd	NR
	Reliance Infrastructure Ltd	NR
	Reliance Power Ltd	NR
	SJVN Ltd	NR
	Torrent Power Ltd	NR

AQ* – Answered Questionnaire
SA – See Another
Parent Company Responded
DP – Declined to Participate
NR – No Response

Notes

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