

# CDP India 200 Report 2011 Accelerating Low Carbon Growth

On behalf of 551 investors with assets of US\$71 trillion











# **2011 Carbon Disclosure Project Investor Members**

CDP works with investors globally to advance the investment opportunities and reduce the risks posed by climate change by asking almost 6,000 of the world's largest companies to report on their climate strategies, GHG emissions and energy use in the standardized Investor CDP format. To learn more about CDP's member offering and becoming a member, please contact us or visit the CDP Investor Member section at www.cdproject.net/investormembers

ABRAPP - Associação	Catholic Super	PFA Pension	
Brasileira das Entidades	CCLA Investment	Raiffeisen Schweiz	
Fechadas de Previdência	Management Ltd	Royal Bank of Scotland	
Complementar	Ethos Foundation	Group	
AEGON N.V.	Generation Investment	Robeco	
AKBANK T.A.S.	Management	Rockefeller & Co., Inc.	
Allianz Global Investors	HSBC Holdings plc	SAM Group	
Kapitalanlagegesellschaft mbH	ING	Schroders	
ATP Group	KB Kookmin Bank	Scottish Widows	
Aviva Investors	KLP	Investment Partnership	
	Legg Mason, Inc.	SEB	
Bank of America Merrill Lynch	London Pensions Fund	Sompo Japan	
BlackRock	Authority	Insurance Inc.	
BP Investment	Mitsubishi UFJ Financial	Standard Chartered	
Management Limited	Group (MUFG)	Sun Life Financial Inc.	
California Public	Morgan Stanley	TD Asset Management	
Employees' Retirement	National Australia Bank	Inc. and TDAM USA Inc.	
System	NEI Investments	The Wellcome Trust	
California State Teachers'	Neuberger Berman	Zurich Cantonal Bank	
Retirement System	Newton Investment		
Calvert Asset	Management Limited		

Nordea Investment

Management

Inc.

Management Company,

## **2011 Carbon Disclosure Project Investor Signatories**

### Carbon Disclosure Project 2011

551 financial institutions with assets of US\$71 trillion were signatories to the CDP 2011 information request dated February 1st, 2011

Aberdeen Asset Managers

Aberdeen Immobilien KAG mbH

ABRAPP - Associação Brasileira das Entidades Fechadas de Previdência Complementar

Active Earth Investment Management

Acuity Investment Management

Addenda Capital Inc.

Advanced Investment Partners

Advantage Asset Managers (Pty) Ltd

AEGON Magyarország Befektetési Alapkezelo Źrt

AEGON N.V.

AEGON-INDUSTRIAL Fund Management Co., Ltd

AFP Integra

AIG Asset Management

Ak Asset Management

AKBANK T.A.S.

Alberta Investment Management Corporation (AIMCo)

Alberta Teachers Retirement Fund

Alcyone Finance

Allianz Elementar Versicherungs-AG

Allianz Group

Altira Group Amalgamated Bank

AMP Capital Investors

AmpegaGerling Investment GmbH

ANBIMA - Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais

Antera Gestão de Recursos S.A.

APG Group Aprionis

Aguila Capital

ARIA (Australian Reward Investment Alliance)

Arisaig Partners Asia Pte Ltd

ARK Investment Advisors Inc Arma Portföy Yönetimi A.Ş

ASB Community Trust

ASM Administradora de Recursos S.A.

Assicurazioni Generali Spa

ATP Group

Australia and New Zealand Banking Group Limited

Australian Central Credit Union incorporating Savings & Loans Credit Union

Australian Ethical Investment Limited

AustralianSupe

Aviva Aviva Investors

AXA Group

Bakers Investment Group (Australia) Pty Ltd

Banco Bradesco S/A

Banco de Credito del Peru BCP

Banco de Galicia y Buenos Aires S.A

Banco do Brasil S/A

Banco Nacional de Desenvolvimento Econômico e Social - BNDES

Banco Santander

Banesprev - Fundo Banespa de Seguridade Social Banesto (Banco Español de Crédito S.A.)

Bank of America Merrill Lynch

Bank of Montreal

Bank Sarasin & Cie AG

Bank Vontobel

Bankhaus Schelhammer & Schattera Kapitalanlagegesellschaft

BANKINTER S.A.

BankInvest

Banque Degroof

Baumann and Partners S.A.

BAWAG P.S.K. INVEST GmbH

Bayern LB

BayernInvest Kapitalanlagegesellschaft mbH

BBC Pension Trust Ltd

BBVA

Bedfordshire Pension Fund

Bentall Kennedy

Beutel Goodman and Co. Ltd

BioFinance Administração de Recursos de Terceiros Ltda

Blumenthal Foundation

BNP Paribas Investment Partners

BNY Mellon

BNY Mellon Service Kapitalanlage Gesellschaft

Boston Common Asset Management, LLC

BP Investment Management Limited

Brasilprev Seguros e Previdência S/A.

British Columbia Investment Management Corporation (bcIMC)

BT Investment Management

Busan Bank

CAAT Pension Plan

Cadiz Holdings Limited

Caisse de dépôt et placement du Québec

Caisse des Dépôts

Caixa Beneficente dos Empregados da Companhia Siderurgica Nacional - CBS

Caixa de Previdência dos Funcionários do Banco do Nordeste do Brasil (CAPEF)

Caixa Econômica Federal

Caixa Geral de Depositos

Caja de Ahorros de Valencia, Castellón y Valencia, BANCAJA

California Public Employees' Retirement System

California State Teachers' Retirement System

California State Treasurer

Calvert Asset Management Company, Inc Canada Pension Plan Investment Board

Canadian Friends Service Committee (Quakers)

Canadian Imperial Bank of Commerce (CIBC)

Capital Innovations, LLC

CARE Super Pty Ltd Carlson Investment Management

Carmignac Gestion

Catherine Donnelly Foundation

Catholic Super

Cbus Superannuation Fund

CCLA Investment Management Ltd

Celeste Funds Management Limited

Central Finance Board of the Methodist Church

Christopher Reynolds Foundation

Church Commissioners for England

Church of England Pensions Board CI Mutual Funds' Signature Global Advisors

Clean Yield Group, Inc

Cleantech Invest AG ClearBridge Advisors

Climate Change Capital Group Ltd

CM-CIC Asset Management

Colonial First State Global Asset Management

Comerica Incorporated

Comite syndical national de retraite Bâtirente Commerzbank AG

CommInsure

Commonwealth Bank of Australia Compton Foundation, Inc.

Concordia Versicherungsgruppe

Connecticut Retirement Plans and Trust Funds

Co-operative Financial Services (CFS) Corston-Smith Asset Management Sdn. Bhd

CRD Analytics

Crédit Agricole

Credit Suisse Gruppo Credito Valtellinese Daegu Bank

Daiwa Securities Group Inc.

de Pury Pictet Turrettini & Cie S.A.

DekaBank Deutsche Girozentrale

Deutsche Asset Management Investmentgesellschaft mbH

Deutsche Bank AG

Deutsche Postbank Vermögensmanagement S.A. Development Bank of Japan Inc.

Development Bank of the Philippines (DBP)

Dexia Asset Management

Dexus Property Group DnB NOR ASA

Domini Social Investments LLC

Dongbu Insurance

DWS Investment GmbH

Earth Capital Partners LLP

East Sussex Pension Fund

**Ecclesiastical Investment Management** Ecofi Investissements - Groupe Credit Cooperatif

Edward W. Hazen Foundation

EEA Group Ltd

Elan Capital Partners

Element Investment Managers

ELETRA - Fundação Celg de Seguros e Previdência

Environment Agency Active Pension fund

Epworth Investment Management

Equilibrium Capital Group Erste Asset Management

Erste Group Bank Essex Investment Management Company, LLC

Ethos Foundation

Eureko B.V.

Eurizon Capital SGR Evangelical Lutheran Church in Canada Pension Plan for Clergy and Lay Workers

FAELCE - Fundação Coelce de Seguridade Social

FAPERS- Fundação Assistencial e Previdenciária da Extensão Rural do Rio Grande do Sul

FASERN - Fundação COSERN de Previdência Complementar

Fédéris Gestion d'Actifs FIDURA Capital Consult GmbH

FIM Asset Management Ltd

FIPECq - Fundação de Previdência Complementar dos Empregados e Servidores da FINEP, do IPEA, do CNPq

FIRA. - Banco de Mexico

First Affirmative Financial Network, LLC

First Swedish National Pension Fund (AP1)

Firstrand Limited Five Oceans Asset Management Pty Limited

Florida State Board of Administration (SBA)

Folketrygdfondet

Folksam

Fondaction CSN Fondation de Luxembourg

Fonds de Réserve pour les Retraites - FRR

Fourth Swedish National Pension Fund (AP4)

FRANKFURT-TRUST Investment-Gesellschaft mbH Fukoku Capital Management Inc

FUNCEF - Fundação dos Economiários Federais

Fundação AMPLA de Seguridade Social - Brasiletros Fundação Atlântico de Seguridade Social

Fundação Attilio Francisco Xavier Fontana Fundação Banrisul de Seguridade Social

Fundação de Assistência e Previdência Social do BNDES - FAPES FUNDAÇÃO ELETROBRÁS DE SEGURIDADE SOCIAL - ELETROS

Fundação Forluminas de Seguridade Social - FORLUZ FUNDAÇÃO ITAUBANCO

Fundação Itaúsa Industrial

Fundação Promon de Previdência Social

Fundação Vale do Rio Doce de Seguridade Social - VALIA Fundação Rede Ferroviaria de Seguridade Social - Refer

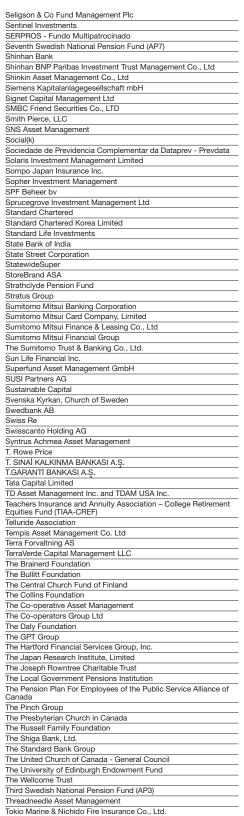
Fundação Sistel de Seguridade Social (Sistel FUNDIÁGUA - FUNDAÇÃO DE PREVIDENCIA COMPLEMENTAR

DA CAESB Futuregrowth Asset Management

Gartmore Investment Management Ltd GEAP Fundação de Seguridade Social

Generali Deutschland Holding AG

Generation Investment Management	LBBW - Landesbank Baden-Württemberg	Norges Bank Investment Management (NBIM)
Genus Capital Management	LBBW Asset Management Investmentgesellschaft mbH	North Carolina Retirement System
Gjensidige Forsikring ASA	LD Lønmodtagernes Dyrtidsfond	Northern Ireland Local Government Officers' Superannuation
GLS Gemeinschaftsbank eG	Legal & General Investment Management	Committee (NILGOSC)
Goldman Sachs Group Inc.	Legg Mason, Inc.	Northern Trust
GOOD GROWTH INSTITUT für globale Vermögensentwicklung mbH	LGT Capital Management Ltd.	Nykredit
Governance for Owners	LIG Insurance Co., Ltd	Oddo & Cie
Government Employees Pension Fund ("GEPF"), Republic of South	Light Green Advisors, LLC	OECO Capital Lebensversicherung AG
Africa	Living Planet Fund Management Company S.A.	Old Mutual plc
Green Cay Asset Management	Local Authority Pension Fund Forum	OMERS Administration Corporation
Green Century Capital Management	Local Government Super	Ontario Teachers' Pension Plan
Groupe Crédit Coopératif	Local Super	OP Fund Management Company Ltd
Groupe Investissement Responsable Inc.	· · · · · · · · · · · · · · · · · · ·	Oppenheim Fonds Trust GmbH
GROUPE OFI AM	Lombard Odier Darier Hentsch & Cie	Opplysningsvesenets fond (The Norwegian Church Endowment)
Grupo Banco Popular	London Pensions Fund Authority	OPSEU Pension Trust
Grupo Santander Brasil	Lothian Pension Fund	Oregon State Treasurer
Gruppo Credito Valtellinese	Lupus alpha Asset Management GmbH	Orion Asset Management LLC
Gruppo Montepaschi	Macif Gestion	Parnassus Investments
	Macquarie Group Limited	Pax World Funds
Guardian Ethical Management Inc	MAMA Sustainable Incubation AG	
Guardians of New Zealand Superannuation	Man	Pensioenfonds Vervoer
Guosen Securities Co., LTD.	Maple-Brown Abbott Limited	Pension Denmark
Hang Seng Bank	Marc J. Lane Investment Management, Inc.	Pension Fund for Danish Lawyers and Economists
Harbourmaster Capital	Maryland State Treasurer	Pension Protection Fund
Harrington Investments, Inc	Matrix Asset Management	Pensionsmyndigheten
Hauck & Aufhäuser Asset Management GmbH	McLean Budden	PETROS - The Fundação Petrobras de Seguridade Social
Hazel Capital LLP	MEAG MUNICH ERGO Asset Management GmbH	PFA Pension
HDFC Bank Ltd	Meeschaert Gestion Privée	PGGM
Health Super Fund	Meiji Yasuda Life Insurance Company	Phillips, Hager & North Investment Management Ltd.
Healthcare of Ontario Pension Plan (HOOPP)	Mendesprev Sociedade Previdenciária	PhiTrust Active Investors
Henderson Global Investors	Merck Family Fund	Phoenix Asset Management Inc.
Hermes Fund Managers	Meritas Mutual Funds	Pictet Asset Management SA
HESTA Super	MetallRente GmbH	PKA
HSBC Global Asset Management (Deutschland) GmbH		Pluris Sustainable Investments SA
HSBC Holdings plc	Metrus – Instituto de Seguridade Social	PNC Financial Services Group, Inc.
HSBC INKA Internationale Kapitalanlagegesellschaft mbH	Metzler Investment Gmbh	Pohjola Asset Management Ltd
	MFS Investment Management	
Hyundai Marine & Fire Insurance. Co., Ltd.	Midas International Asset Management	Portfolio 21 Investments
Hyundai Securities Co., Ltd.	Miller/Howard Investments	Porto Seguro S.A.
Ibgeana Society of Assistance and Security SIAS / Sociedade	Mirae Asset Global Investments Co. Ltd.	PREVHAB PREVIDÊNCIA COMPLEMENTAR
Ibgeana de Assistência e Seguridade (SIAS)	Mirae Asset Securities Co., Ltd.	PREVI Caixa de Previdência dos Funcionários do Banco do Brasil
IDBI Bank Ltd	Missionary Oblates of Mary Immaculate	PREVIG Sociedade de Previdência Complementar
Ilmarinen Mutual Pension Insurance Company	Mistra, Foundation for Strategic Environmental Research	Provinzial Rheinland Holding
Impax Group plc	Mitsubishi UFJ Financial Group (MUFG)	Prudential Investment Management
IndusInd Bank Limited	Mizuho Financial Group, Inc.	Psagot Investment House Ltd
Industrial Bank (A)	Mn Services	PSP Investments
Industrial Bank of Korea	Monega Kapitalanlagegesellschaft mbH	PSS - Seguridade Social
Industry Funds Management	Morgan Stanley	Q Capital Partners Co. Ltd
Infrastructure Development Finance Company	Motor Trades Association of Australia Superannuation Fund Pty Ltd	QBE Insurance Group
ING	Mutual Insurance Company Pension-Fennia	Rabobank
		Raiffeisen Schweiz
Insight Investment Management (Global) Ltd		
Insight Investment Management (Global) Ltd Instituto de Seguridade Social dos Correios e Telégrafos- Postalis	Natcan Investment Management	
	Nathan Cummings Foundation, The	Railpen Investments
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Toronto Atmospheric Fund





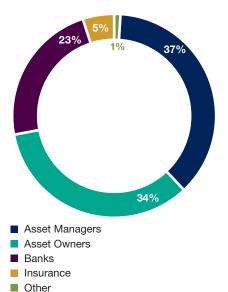
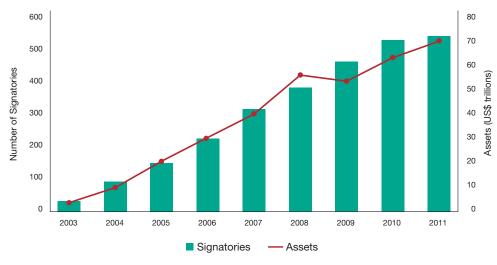


Figure 2: CDP Investor Signatories & Assets over time



## **CEO Foreword**

Corporations, investors and governments today are faced with a choice: to compete aggressively for finite resources, or to advance towards a low-carbon economy that enables sustainable, profitable growth, whilst reducing reliance on increasingly scarce materials.

Last year global energy-related carbon dioxide emissions reached a record high. The International Energy Agency estimates made for bleak reading, but compounded the necessity to take bold and decisive action, if we are to have any chance of limiting temperature increase to the 2°C level agreed by world leaders, to protect against catastrophic climate change.

What's more, rising energy demands are competing for a limited supply of fossil fuels. The competition for increasingly scarce natural resources is putting pressure on commodity prices and having a growing impact, both socially and economically. It is clear that today, more than ever, we must build momentum to decouple economic growth from emissions.

Managing carbon emissions and protecting the business from climate change impacts is fundamental to achieving sustainable and strong shareholder returns. Earlier this year, investment consultancy, Mercer released a report concluding that the best way for institutional investors to manage portfolio risk associated with climate change may be to shift 40% of their portfolios into climate-sensitive assets with an emphasis on those that can adapt to a low-carbon environment.

An important part of an investor's strategy should be to engage with the companies in which they invest to encourage performance improvement. Carbon Action is a new initiative launched by CDP this year. It is driven by a leading group of investors to encourage their portfolio companies to reduce emissions, by investing in emissions reducing activities with a satisfactory payback period. Carbon Action reflects a growing recognition that there is a huge range of carbon reducing activities that companies can undertake that have a very clear business case. It is, therefore, in the interests of all investors and not just the more active owners of investments, to ensure these actions are taken.

As the management of carbon continues to move into companies' core business strategies and mainstream investment thinking, demand for primary corporate climate change information grows around the world. As well as working on behalf of 551 institutional investors, to gather relevant information from large corporations around the world, CDP is also working with global businesses and governments to strengthen the resilience and sustainability of their supply chains through the CDP Supply Chain program. CDP Cities has launched to help the world's major cities reduce climate change risk and bolster economic growth; and CDP Water Disclosure is now in its second year of working with major global companies to improve water management. A key part of CDP's strategy is to ensure the effective use of data collected. To assist with this, companies are able to obtain tools that help them to measure, report and manage carbon more effectively, through CDP Reporter Services.

It is through partnerships that CDP can achieve the largest impact. In India we are delighted to be working with our local partners the Confederation of Indian Industry (CII - ITC CESD) and WWF India, as well as the India Report Partner, Ernst & Young Pvt. Ltd. In addition, we highly value the continued support of our Global Advisor, PwC, as well as that of Accenture, Microsoft, SAP and Bloomberg. These and our other partners around the world are integral to the acceleration of CDP's mission.

Whilst we wait patiently for much needed global regulation, business must continue to forge ahead, innovate and seek out opportunities by doing more with less. The decisions that perpetuate a legitimate, low-carbon and high growth economy will bring considerable value to those that have the foresight to make them. The information contained in this report and the companies' responses assist in illuminating that path.

**Paul Simpson** 

CEO

Carbon Disclosure Project

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## **Executive Summary**

In the face of climate change adversities, which can be an impediment to the sustainable growth of economy, India can benefit from a low carbon growth trajectory to achieve its objectives for economic development and mitigation of climate change. As one of the largest and fastest growing economies in the world, India is facing increasing international pressure to mitigate its GHG emissions. Transitioning to a low carbon economy presents multiple opportunities to India, including sustainable economic growth, infrastructure development through low carbon technologies, enhanced energy security, green employment opportunities and a leading role in the clean technology sector.

Some of the critical factors to achieve low carbon growth include mapping and forecasting of India's baseline GHG emissions, identification of plausible carbon abatement levers in the key focus sectors, gap analysis of existing / upcoming policies and a policy

framework for overcoming barriers to low carbon growth. The successful implementation of this transition would require significant investment, planning and massive coordination among all levels of government and sectors of the economy. However, once realized, the transition to a low carbon economy would strengthen India's economy, energy security and its capability to meet the challenge of climate change.

Leading companies have a strong sense of the potential impacts of climate change on their bottom-line performance. They have set aside regulatory uncertainty, and instead have taken their cues from the market. Rather than standing on the sidelines waiting for clarity, they are seizing the opportunity to serve their markets and to create long-term competitive value. This is the fifth year that the Carbon Disclosure Project (CDP) sent its annual information request to the top 200 of India's companies by market cap on behalf of 551 investors with US\$ 71

trillion of assets under management, asking them to measure and report what climate change means for their business. The responses have shaped CDP's 2011 report on the India 200. This year, 28.5% (57)\* companies from the India 200 responded to the CDP questionnaire, compared to 51 companies in 2010. Responses from 11 of these companies are included in the Global 500 response. 22% (10) of the respondents were either included in the sample for the first time or have chosen to disclose for the first time this year. It can be seen that over 65% (30) of the respondents have been regularly disclosing for the last three years or more.

While the responses indicate some variations across industry sectors, they provide an insight on how companies are gearing themselves to the risks and opportunities posed by a low carbon economy.

## Companies recognized on Carbon Disclosure Leadership Index (CDLI) in India

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Sector	Company Name	CDLI scores
Information Technology	Tata Consultancy Services	86
Information technology	Wipro	80
Financials	Yes Bank Limited	78
Materials	ACC Cements	78
Materials	Tata Chemicals	77
Consumer Staples	Tata Global Beverages	76
Materials	Sesa Goa	75
Utilities	GVK Power & Infrastructure	75
Industrials	ABB	72
Utilities	Tata Power Co	71

<sup>\*</sup>The analysis in the report is based on 46 Indian companies who responded to CDP directly in 2011. The remaining 11 companies are not included as they responded indirectly via their parent companies. The analysis of the parent company's response however is included in the Global 500 report as they form part of CDP's Global 500 sample. The 11 companies are listed as AQ (SA) in Appendix III.

## **Key findings**

- **Companies in the Carbon Disclosure Leadership Index** (CDLI) show a diverse mix of sectors. This indicates that awareness and action related to climate change issues is not confined to a few sectors only.
- 89% (41) of the respondents report on their GHG emissions. While this is a marginal increase from 85% (33) in 2010, it reflects the increasing trend towards monitoring and disclosure of GHG emissions.
- companies have Board level or senior management oversight of climate change issues. This indicates that complexity of climate change issues requires strong governance and integration of climate strategy with business strategy.

• 91% (42) of the responding

companies perceive regulatory opportunities.Responding companies are aware that transforming key business processes to meet new and emerging regulations offer business opportunities.

Figure 3: CDP India Response Rate



■ Answered Questionnaire ■ Declined to Participate

• 89% (41) of the responding

Public company responses to CDP can be found at www.cdproject.net

## Overview of the CDP 2011 India 200 Report

### Governance

In CDP 2011, 78% (36) of the respondents have identified strong governance as key to managing the complexity of climate change issues. It is also critical to realizing the full potential of business response to climate change. Additionally, establishment of strong governance practices will ensure that responsible officers throughout the organization understand climate change strategy, goals, decision making process, risk management and accountability.

## **Risk and Opportunity Analysis**

This section assesses the extent and manner in which companies are responding to the risks and opportunities related to climate change. As in previous years, three categories of risks and opportunities are highlighted in the CDP questionnaire – regulatory, physical and other risks. The analysis considers the financial implications associated with the identified risks and opportunities and the ways in which they influence businesses and their value

chains. It also describes any actions that companies may have taken to manage or adapt to the risks/opportunities that have been identified, including the cost of those actions.

## **Comparative Overview**

The number of companies which perceive some sort of risk due to climate change in CDP 2011 stands at (41) 89% of the respondents while the remaining (5) 11% of respondents, have indicated that they do not perceive any direct risks due to climate change. It is interesting to note that 76% (35) of the respondents perceive themselves to be exposed to both regulatory and physical risks which can have an impact on business. Emerging regulatory risk is viewed as affecting business mainly due to the assumption that in the near future, India may have to accept binding emission reduction targets. Such a presumption arises mostly from the announcement of a requirement of mandatory survey of designated sectors by the National Action Plan on Climate Change (NAPCC), and also the end of the first commitment period of Clean Development Mechanism, established under the Kyoto Protocol, on 31st December, 2012. In the case of other risks, 67% (31) of the respondents consider these to affect business though the issues listed are company and sector-specific. A look at the statistics clearly show that companies are looking at the bigger picture and are leveraging the opportunities that climate change offers. They are gearing up to take advantage of climate change related product and service demands. An overwhelming 96% (44) of the respondents see some or the other opportunities that climate change presents their business with, 87% of the respondents (40) see positive revenue avenues from regulatory changes because of experience of working in a developing country, with rapidly changing regulations and business

Figure 4: Percentage of respondents in each governance level

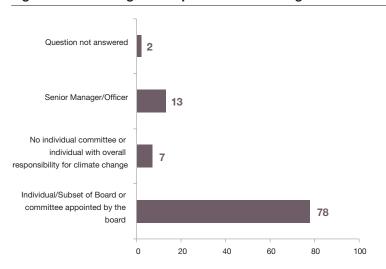
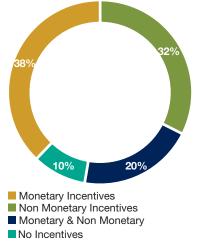
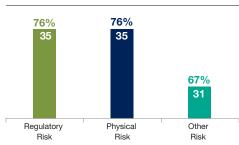


Figure 5: Incentives for management of climate change issues



climate. Responses to the CDP questionnaire reveals that 50% (23) and 65% (30) of the respondents are looking forward to cashing in on physical opportunities and other opportunities arising out of climate change related developments respectively.

### Figure 6: Risk Perception



Companies perceiving Risks due to climate change

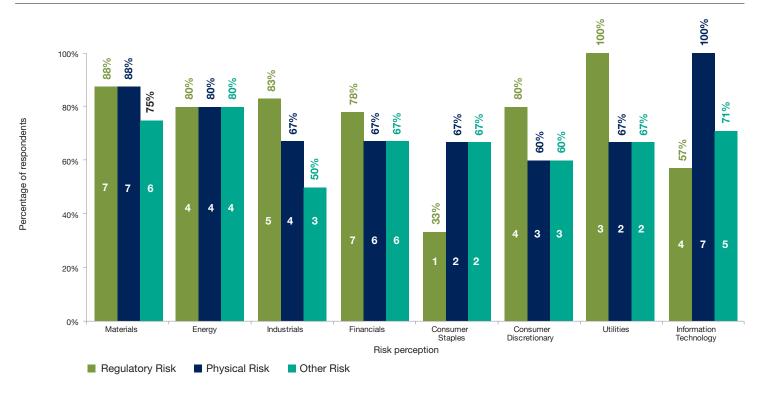
## **Regulatory Risk**

Companies in India are increasingly concerned about changes in regulations, which may result in increased operational costs. Respondents comprising 76% (35) of the responding companies are aware of such regulatory risks. They perceive international agreements, national commitments, populist policies and stakeholder pressure, to cause significant impact to their businesses. Carbon cess, more stringent air pollution limits, cap and trade schemes, fuel, water and energy taxes, and general uncertainty are seen as key factors which are shaping their businesses.

To cite specific examples, infrastructure companies are anxious that with the introduction of the National Mission on Sustainable Habitat through which the

Government of India aims to encourage practices that ensure sustainable development. These may include energy efficient design, operations and policies. One of the thrust areas is encouragement to have a modal shift in public transport. In future there may also be other direct or indirect forms of discouragement to use of private vehicles. Companies involved in agricultural products are aware that there could be stringent regulations relating to pesticide and fertilizer use for plantations in India. The major national regulatory framework for climate change is the NAPCC which is guided by the principles of protection of the poor and vulnerable sections of society through what is termed an inclusive development strategy, achieving national growth through a qualitative change and economic direction that enhances ecological sustainability, demand-side

Figure 7: Snapshot of Category-wise and Sector-wise Risk Perception



management, better technology that looks into aspects of mitigation or adaptation, market mechanism that rewards sustainable development, and inclusivity that invites link-ups with civil society and local government institutions.

## **Physical Risks**

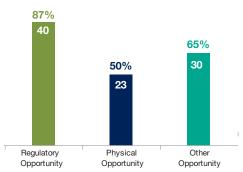
Indian companies are very concerned about the long term future of their business models, with 76% (35) of the responding companies stating their concern about the physical risks. Petroleum companies are concerned about the impact of heavy rains and cyclones in coastal areas, which may cause either reduction or disruption in production capacity. Rising sea levels could impact coastal facilities like refineries, ports, terminals, etc. as events such as floods, related to storm surges, could become more frequent. In recent years, storm surges associated with hurricanes have resulted in refinery shutdowns in the US Gulf for some companies. Volatility in precipitation patterns in the form of heavy concentrated rainfall, flash floods, and sudden changes in topography; storms and strong winds as well as increase in temperatures will have direct impact on project execution and life of assets. Apprehensions of both excessive and volatility in precipitation is very common. Companies with large exposure to infrastructural disruptions are taking a positive approach and setting up disaster recovery systems and trainings, to minimize the impact of cyclones, typhoons, earthquakes, tsunamis and other such violent weather conditions. Eight companies are concerned about the actual impact of a changing climate within the coming five years. Most

companies see these occurrences as to causing a direct impact to them resulting in inability to do business, reduction in production capacity, increased operation costs or reduced demand for goods and services. The major risk drivers perceived by the respondents in terms of physical risks were changes in temperature extremes, changes in precipitation extremes and droughts, tropical cyclones and induced changes in natural resources.

### **Other Risks**

Companies are monitoring their risks because of the uncertain environment regarding climate change, differences in literature and news regarding the long term impact of climate change and the political nature of international discussions. There are lots of businessspecific and sector specific risks that companies envisage themselves to be exposed to. Changing consumer behaviour, fluctuating socio-economic conditions, increasing humanitarian demands, uncertainty in market signals. induced changes in human and cultural environment and damage to reputation upon lenient adherence, are the primary drivers of other risk apprehensions. Moving forward, there will be a need for greater transparency and increased disclosure on climate action by corporates. Internationally, this will be through initiatives such as the CDP and nationally, through upcoming mandatory and voluntary disclosure requirements. Companies see these risks to be very likely and capable of causing medium to high impact to their businesses.

**Figure 8: Opportunity Perception** 



Companies perceiving opportunities due to climate change

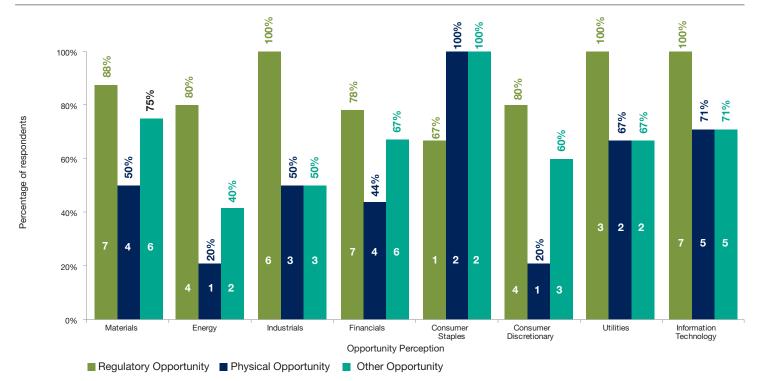


Figure 9: Snapshot of Category-wise and Sector-wise Opportunity Perception: India CDP 2011

## **Regulatory Opportunity**

Despite the skepticism, 87% (40) of the responding companies are aware that new regulations and changing business practices also provide them with new opportunities. New regulations can provide an additional source of revenue, in the form of tradable certificates through schemes such as Perform, Achieve and Trade (PAT), Renewable Energy Obligations (REO) and the UNFCCC-Clean Development Mechanism (CDM). Coming off the blocks early by manufacturing sustainable products or sustainable services, will provide opportunities like charging premium prices. Also, such steps can result in

greater capital availability as banks are getting more skeptical in providing loans to companies without sustainability processes in place. Also, by ensuring proper training and putting in place sustainable processes, companies can strive to achieve operational efficiencies. This can cause greater discipline, stakeholder acceptance, reduced operational costs, and wider social benefits. Also, some companies envisage opportunities of venturing into new products and services, which they see becoming part of the wider market, because of new regulations.

## **Physical Opportunity**

50% (23) of the responding companies foresee physical opportunities in the near future. A lot of the respondents are big players in their fields, and thus, they believe they are in a better position to capitalize because of their strong management structures and wide operational infrastructure. This, they believe, will enable them to fight regional competition better. Infrastructure companies think that change in precipitation pattern may drive innovations in developing climate resilient infrastructure such as artificial reefs and dykes that act as barriers to sea water inundation due to sea level rise, climate resilient materials such as heat resistant paving materials and durable overlay materials and changes in the elevation of bridges, streets, pavement and rail lines, re-design of drainage system and raising sea walls.

## **Other Opportunity**

While evaluating other opportunities, 65% (30) of the responding companies see climate change related developments as an opportunity to rebrand themselves. By providing wider stakeholder awareness, disclosures on economic, social and environmental performance indicators, and improvement in governance, companies believe they can increase their reputation in the market, providing intangible benefits in the form of international acceptance, funding, employee turnover and project clearances. These consequences are perceived to cause significant impact to their business by 17% (8) of the respondents.

## GHG emission reported in 2011

Over the last few years, the number of companies reporting their GHG emissions is on an upward trend. In 2011, 89% (41) of the responding companies have reported either of Scope 1, 2 or 3 emissions. This is more than a twofold increase since CDP 2008 (see Figure 10). In 2011, 89% (41) of the respondents have disclosed their Scope 1 emissions while 87% (40) of the respondents have disclosed Scope 2 emissions. Scope 3 emission disclosure stands at 54% (25), an increase from 46% in CDP 2010 and more than double the 26% disclosure for CDP2008.

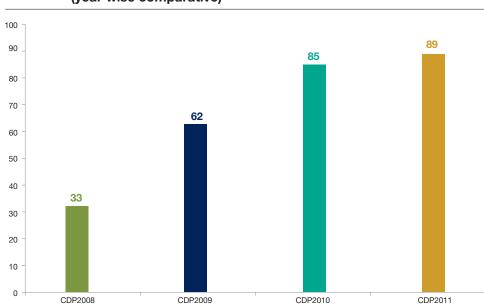


Figure 10: Percentage of companies reporting GHG emission (year wise comparative)

The total disclosed emissions (Scope 1,2 & 3) stands at 93.17 million tonnes of  $CO_{\circ}e$  . This is lower than the emissions reported in CDP 2010 which stood at 114 million tonnes CO<sub>2</sub>e . As was the case in CDP 2010, in CDP 2011 too, direct Scope 1 emissions account for the biggest chunk of emissions with 87% (80.75 million tonnes CO<sub>2</sub>e) of the total disclosed emissions. Indirect or Scope 2 emissions stand at 10% (9.46 million tonnes CO<sub>2</sub>e), lower than the 14% in CDP 2010. Scope 3 emissions form only 3% of the total emissions disclosed. This is significantly lower compared to similar reporting internationally.

The below graph shows the variations in the reported GHG emissions in million tonnes CO<sub>2</sub>e from 2008 to 2011. It can be seen that the emissions reported have gone down in CDP 2011. This could be attributed to a smaller number of companies reporting this year.

Figure 11: Breakup of Scope of emissions reported in CDP 2011

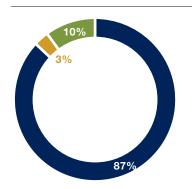
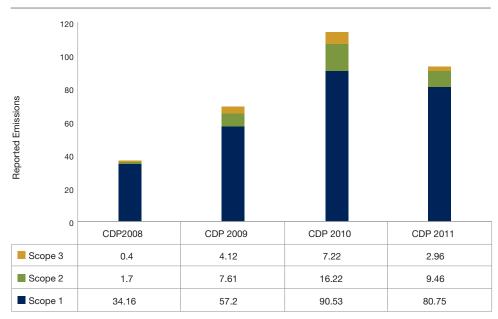


Figure 12: Reported GHG Emissions in million tonnes CO2e



## Sectoral Snapshot of Emissions Disclosure:

Amongst all the sectors, the Materials sector is leading in terms of the quality of GHG disclosure to CDP 2011. The analysis also demonstrates that a 100% GHG disclosure has been reported by the companies from Consumer discretionary; Consumer staples, Energy and Materials sector (see Figure 13). It is noteworthy that nonenergy intensive sectors, such as Financials and Information Technology are also in the forefront in terms of GHG emissions disclosure.

Yet another positive indication is that some companies have begun to verify or assure their reported emissions to ensure the reliability and accuracy of their emissions data. However, it cannot be missed that a major percentage of the reporting companies have not reported verified or assured emissions data. For companies reporting Scope 1 and 2 GHG emissions, the percentage of companies which have reported data that is verified or assured (complete or underway) is close to 37% while for Scope 3 emissions, the percentage of companies reporting verified or assured data is only 24%. This clearly shows that Indian companies need to lay greater emphasis on getting their GHG figures verified to ensure reliability of the GHG emissions data.

Figure 13: Sector specific analysis of companies regarding GHG disclosure

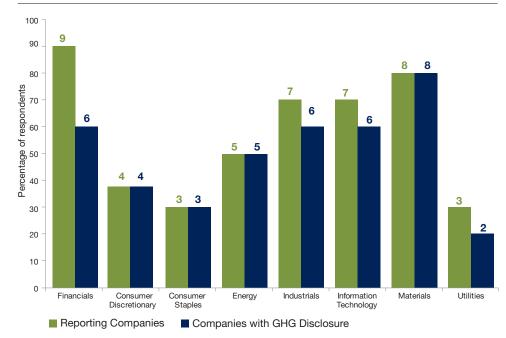


Table 1 : Number of respondents undergone Verification for atleast a portion of their emissions

Total Number of companies	46
The number of companies that reported to have had their Scope 1 and 2 emissions verified	17
Percentage	37
The percentage/number of companies whose verification meet CDP's verification criteria	2
Percentage	4

## Verification

CDP is committed to increasing the level of verification of emissions disclosures in order to improve the quality of the information submitted by companies globally. In turn, this will build trust in carbon reporting and lead to an increase in the use of the data in analysis and decision making. Key drivers for verification include the increasing market demand from investors, customers, regulators, nongovernmental organizations and other stakeholders for assured and reliable climate data.

Improved internal management processes that can be harnessed for competitive advantage is a key benefit of verification. In order to support this drive, CDP rewards verification highly in both disclosure and performance scoring in 2011 and it is one of the criteria for entry into the CPLI.

### **Verification levels in 2011:**

In 2011, a number of criteria were introduced to determine what is accepted as verification within CDP's scoring methodology. It requires that a verification statement:

- 1. Is related to the relevant emission scope
- 2. Clearly states the type of verification that has been given and the verification standard used
- 3. Covers the current reporting year
- 4. Is undertaken by an independent third party

Verification of emissions has decreased in the year on year analysis in this report because CDP has strengthened its criteria to reflect the importance of verification. 37% (17) of respondents stated that they had gained or were in the process of gaining verification of Scope 1 and 2 emissions.

The number of companies obtaining verification is similar for both Scope 1 and Scope 2 emissions for the majority of sectors. Energy and Utilities sectors, having significant scope 1 emissions have more companies obtaining verification of Scope 1 than Scope 2.

## What is CDP doing to support reporting companies?

For 2012, CDP is providing further clarity on what constitutes an acceptable verification process, which will be communicated as part of the questionnaire consultation process in September 2011. Looking further ahead, CDP has launched a verification white paper and consultation on a verification roadmap (2013-2018) aiming to encourage more companies to verify their climate data. Visit https://www.cdproject.net/verification to find out more.

## **Scope 3 Emissions:**

The Scope 3 emissions reported to CDP 2011 has decreased to 2.96 million tonnes CO<sub>2</sub>e from seven million tonnes CO<sub>2</sub>e in 2010 and four million tonnes CO<sub>2</sub>e in 2009.

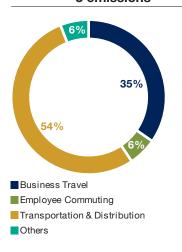
54 % (25) of respondents of CDP 2011 have disclosed quantitative Scope 3 emissions.

With increasing emphasis on verification and assurance of emission figures, it is pertinent to note that the disclosed Scope 3 emissions of over 52% (13) of the respondents have not been assured or verified. This clearly indicates that reporting on Scope 3 emissions needs more attention. The Scope 3 figures of 48 % (12) of respondents have either been verified or verification is underway . 60% (15) of the respondents who have disclosed their Scope 3 emissions have indicated that their Scope 3 emissions have increased compared to the previous years. This could be attributed to various reasons such as increase in headcount, increased logistics operations, overall improved measurement of Scope 3 emissions among others. 24 % (6) of respondents disclosed their Scope 3 emissions for the first time and 8% (2) of those who disclosed their Scope 3 figures reported a decrease compared to the previous year.

A mapping of the Scope 3 emissions to identify the primary sources revealed a trend similar to CDP 2010. For CDP 2009, 96% of reported Scope 3 emissions were on account of business travel. In CDP 2010, this figure decreased to 43.5%, which in CDP2011 has further decreased to 35% (1.03 million tonnes CO<sub>2</sub>e). This indicates that Indian business is in the process of adopting alternatives to business travel.

A surprising shift in the trend of Scope 3 emission sources is a sharp increase in the emissions disclosed from transportation and distribution of products. These emissions stand at 54% (1.59 million tonnes CO<sub>2</sub>e) accounting for the biggest chunk of Scope 3 emissions compared to the mere 8% of the total Scope 3 emissions reported in CDP 2010. Employee commuting accounts for 6%(0.16 million tonnes CO<sub>2</sub>e) of Scope 3 emissions reported by the companies while other parameters such as waste generated in operations, courier, sale of electricity, use of paper products etc accounted for 6% (0.165 million tonnes CO<sub>2</sub>e ) of the reported emissions. This has decreased significantly compared to the 46.5% that it contributed to, in CDP 2010.

Figure 14: Mapping of Scope 3 emissions



## Methodologies – GHG Emissions Accounting

The GHG protocol remains the most widely used with 46 % (21) of respondents adopting this protocol for accounting of their GHG emissions. This, though, is a decrease of 14% compared to CDP 2010 when response rate where 60% of the respondents had adopted this protocol. The decrease can be attributed to an increase in the preference for the use of the India GHG protocol, which has increased to 13 % (6) from 9 % in CDP 2010. The number of respondents using the ISO14064-1 protocol has also decreased from 14% in CDP 2010 to 11% (5) in CDP 2011. Close to 19% (9) of the respondents are using other protocols to account for their emissions while 11% (5) have not responded to this question. Figure 15 shows the percentage breakup on the respondents. The other methodologies that have been used by companies vary with the sector to which they belong. Some of those that have been used this year are:

- GHG Protocol Corporate Reporting Standard by Cement Sustainability initiative of World Business Council for Sustainable Development
- UNFCC CDM Methodology American Petroleum Institute "Compendium of Green House Gas Methodologies for the Oil and Natural Gas Industry" 2009.
- Methodology given by Chicago Climate Exchange, which uses emission factors for different fuels from IPCC website.
- WRI protocol under GRI-G3 guideline

Figure 15: Methodologies adopted by companies for GHG accounting

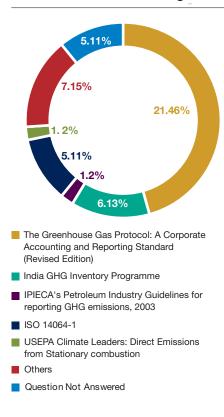
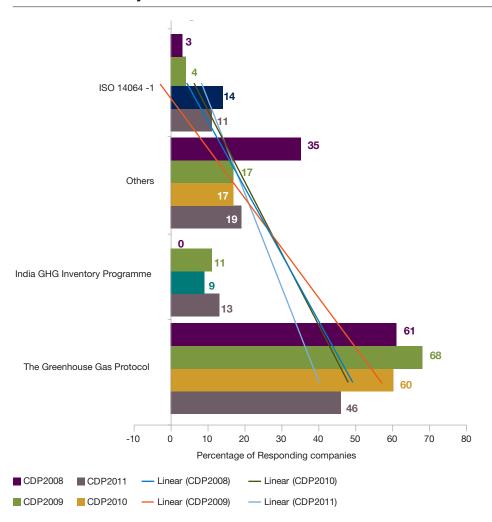
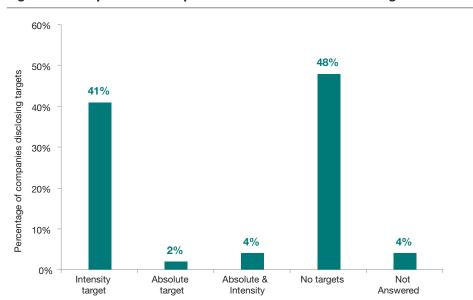


Figure 16: Trend in methodology selection for GHG emissions accounting over the years



## **GHG Emission Reduction Targets**

Figure 17: Response of companies to emission reduction targets



The figure 17 shows the response of the CDP2011 companies to emission reduction targets. Setting emission reduction targets and monitoring them is essential for GHG emission reduction. In 2011, the majority of respondents (48%, 22) did not have any emissions reduction targets that were active, ongoing or reached completion in the reporting year.

Similar to the trend that was observed in CDP 2010; the majority of the reported targets are intensity based. Over 41% (19) of responding companies have reported an intensity target for emission reduction and only one company reported an absolute target. 4% (2) of the respondents have reported both absolute and intensity targets.

Similar to CDP 2010, the targets that were set by companies were quantitative in nature.

Table 2: Reported Performance Targets of Responders

Company	Sector	Target Unit	Target Type	Performance Target	Baseline	Timeline	Status
ACC	Materials	CO <sub>2</sub> -e	Intensity	Reduction from 545.8 kg CO <sub>2</sub> / tonne to 518.8 kg CO <sub>2</sub> / tonne of cementitous material excluding emissions from site power generation	2009	2013	Ongoing
Ambuja Cements	Materials	CO <sub>2</sub> -e	Intensity	Reduction from 785 kg CO <sub>2</sub> / tonne to 628 kg CO <sub>2</sub> / tonne of cement production	1990	2013	Ongoing
Sterlite Industries	Materials	CO <sub>2</sub> -e	Intensity	10% reduction in CO <sub>2</sub> emission/ tonne of product	2006	2012	Ongoing
Tata Chemicals	Materials	CO <sub>2</sub> -e	Intensity	20% reduction in ${\rm CO_2}$ emission/ tonne of product	2008	2020	Ongoing
Bharat Petroleum Corporation	Energy	Energy	Intensity	3 to 5% reduction in energy consumption	2009	2010	Achieved
Cairn India	Energy	CO <sub>2</sub> -e	Intensity	Reduction from 135 mt CO <sub>2</sub> e of base year	2009	2010	Achieved
Godrej Consumer Products	Consumer Staples	CO <sub>2</sub> -e	Intensity	$4\% {\rm reduction~in~CO}_2 {\rm emission~/mt~of}$ product	2009	2011	Completed
Procter and Gamble Company	Consumer Staples	CO <sub>2</sub> -e	Intensity	20% reduction in CO <sub>2</sub> e/unit of production	2007	2012	Ongoing

Mahindra & Mahindra	Consumer discretionary	CO <sub>2</sub> -e	Intensity	5% reduction in CO <sub>2</sub> emission/litre of product	2009	2010	Achieved
Titan Industries	Consumer Discretionary	CO <sub>2</sub> -e	Absolute & Intensity	50% reduction in CO <sub>2</sub> emissions over base year	2010	2015	Ongoing
				18.2% reduction in CO <sub>2</sub> e/unit of production	2010		Ongoing
Shree Cement	Industrials	CO <sub>2</sub> -e	Intensity	20% reduction in ${\rm CO_2}$ emission/ tonne of product	1990	2020	Achieved
ABB	Industrials	CO <sub>2</sub> -e	Intensity	2.5% reduction in CO <sub>2</sub> emission/FTE	2009	2010	Not Achieved
Tata Power Co	Utilities	CO <sub>2</sub> -e	Intensity	8% reduction in CO <sub>2</sub> emission/ MWh generated	2009	2011	Achieved
Infosys Technologies Ltd	Information Technology	CO <sub>2</sub> -e	Intensity	65% reduction in CO <sub>2</sub> e/unit revenue	2008	2015	Ongoing
HCL Technologies	Information Technology	CO <sub>2</sub> -e	Intensity	20% reduction in CO <sub>2</sub> emission/ FTE	2009	2020	Ongoing
Satyam Computer Services	Information Technology	CO <sub>2</sub> -e	Intensity	2% reduction in CO <sub>2</sub> e/FTE	2011	2014	Ongoing
Tech Mahindra	Information Technology	CO <sub>2</sub> -e	Intensity	5% reduction in CO <sub>2</sub> e/FTE	2009	2013	Ongoing
TCS	Information Technology	CO <sub>2</sub> -e	Intensity	5% reduction in CO <sub>2</sub> e/FTE	2010	2011	Not Achieved
HDFC	Financials	CO <sub>2</sub> -e	Intensity	15% Reduction in CO <sub>2</sub> e/unit revenue, / metric tonne per millon profit,/FTE	2010	2011	Achieved

**Table 3: Reported emission reduction targets** 

Company	Sector	Emission Intensity Reported	Metric used
TCS	Information Technology	8	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		2.4	Metric tonnes of CO <sub>2</sub> e per FTE
		0.2	Metric tonnes of CO <sub>2</sub> e per square foot
Wipro	Information Technology	50.4	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		3.04	Metric tonnes of CO <sub>2</sub> e per FTE
HCL Technologies	Information Technology	10.65	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		2	Metric tonnes of CO <sub>2</sub> e per FTE
HDFC Bank Limited	Financials	49.36	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		6.64	Metric tonnes of CO <sub>2</sub> e per FTE
Yes Bank	Financials	6.8	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		3.28	Metric tonnes of CO <sub>2</sub> e per FTE

		0.02	Metric tonnes of CO <sub>2</sub> e per square foot
ICICI Bank	Financials	1.68	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		3.73	Metric tonnes of CO <sub>2</sub> e per FTE
		0.031	Metric tonnes of CO <sub>2</sub> e per square foot
ACC Cements	Materials	17563.2	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		1590.87	Metric tonnes of CO <sub>2</sub> e per FTE
		0.549	Metric tonnes of CO <sub>2</sub> e per tonne of cementitious material
Tata Chemicals	Materials	0.0019	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		862.41	Metric tonnes of CO <sub>2</sub> e per FTE
Procter & Gamble	Consumer Staples	0.0000748	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		46.5	Metric tonnes of CO <sub>2</sub> e per FTE
Tata Global beverages	Consumer Staples	11.35	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		6.2	Metric tonnes of CO,e per FTE
		0.35	Metric tonnes of CO <sub>2</sub> e per metric tonne of product
Godrej Consumer Products	Consumer Staples	3.42	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		60.18	Metric tonnes of CO,e per FTE
		0.297	Metric tonnes of CO <sub>2</sub> e per metric tonne of product
ABB	Industrials	0.0000465	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		12.6	Metric tonnes of CO <sub>2</sub> e per FTE
L&T	Industrials	0.000001	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		10.4	Metric tonnes of CO <sub>2</sub> e per FTE
ITC	Industrials	0.0000045608	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		50.59091	Metric tonnes of CO <sub>2</sub> e per FTE
		0.233507	Metric tonnes of CO <sub>2</sub> e per MWh
Shree Cement	Industrials	0.0002	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		1911.95	Metric tonnes of CO <sub>2</sub> e per FTE
		0.74	Metric tonnes of CO <sub>2</sub> e per metric tonne of product
GVK Power & Infrastructure	Utilities	0.0001439	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		1103	Metric tonnes of CO <sub>2</sub> e per FTE
Tata Power Co	Utilities	0.000168	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		3541	Metric tonnes of CO <sub>2</sub> e per FTE
		0.695	Metric tonnes of CO <sub>2</sub> e per MWHr
Essar Oil	Energy	0.000005538	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		2551	Metric tonnes of CO <sub>2</sub> e per FTE
		0.17685	Metric tonnes of CO <sub>2</sub> e per metric tonne of crude throughput

Cairn India	Energy	90.6	Metric tonnes of CO <sub>2</sub> e per 1000 tonnes of hydrocarbon production
Mahindra & Mahindra	Consumer Discretionary	11.95	Metric tonnes of CO <sub>2</sub> e per FTE
		0.76	Metric tonnes of CO <sub>2</sub> e per unit of production
Godrej industries	Consumer Discretionary	124.93	Metric tonnes of CO <sub>2</sub> e per unit total revenue
		98.13	Metric tonnes of CO <sub>2</sub> e per FTE
		0.814	Metric tonnes of CO <sub>2</sub> e per metric tonne of product

## **GHG Emissions Intensity Benchmarks**

Emission intensity measures describe an organization's CO<sub>2</sub>e emissions in the context of another business metric. In this way, emissions are normalized to account for growth. There is no single metric specified in the methodology for measuring the GHG emissions intensity. CDP offers the respondents a choice in terms of measuring the GHG emissions in terms of financial output, CO<sub>2</sub> emissions per Full time equivalent employee and additional normalized metric that is appropriate to the reporting company.

Figure 18: Reported emission intensity type

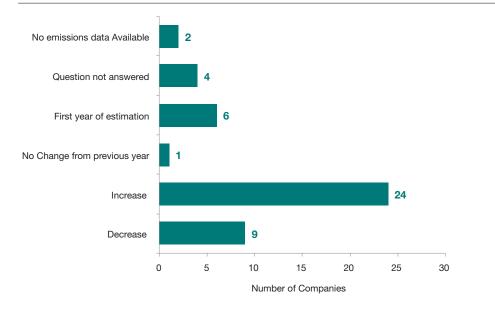
6%

14%

28%

In terms of Revenue/sales
In terms of Full time employees
In terms of output or product
Others

Figure 19: Change in Absolute Scope 1 & 2 emissions from previous year



## **Chapter 1: 2011 Carbon Disclosure Scores**

Based on the responses received, the disclosure scores of the responding Indian companies are listed below:

Table 4: Reported public emission reduction targets

Sector	Company Name	Final Disclo- sure scores
Consumer Discretionary	Indian Hotels Co.	56
	Titan Industries	55
	Godrej Industries	51
	Mahindra & Mahindra	53
Consumer Staples	Tata Global Beverages	76
	Godrej Consumer Products	57
	Procter & Gamble Company	49
Energy	Essar Oil	69
	Hindustan Petroleum Corporation	46
	Cairn India	43
	ONGC	34
	Bharat Petroleum Corporation	39
Financials	YES BANK Limited	78
	HDFC Bank Limited	55
	ICICI Bank Limited	67
	Infrastructure Development Finance Company	57
	State Bank of India	24
	IndusInd Bank	50
	Reliance Capital	34
	IDBI Bank Ltd	28
	DLF	6
Industrials	Shree Cement	59
	ABB	72
	ITC Limited	64
	Larsen & Toubro	69
	Crompton Greaves	52
	IL&FS Transportation Networks	32
	Tata Motors	44
Information Technology	Wipro	80
	HCL Technologies	66
	Infosys	66
	Tata Consultancy Services	86

	Tech Mahindra	52
	Mahindra Satyam	51
	igate Patni	15
Materials	ACC	78
	Tata Chemicals	77
	Sesa Goa	75
	Sterlite Industries	62
	Hindustan Zinc	53
	Ambuja Cements	46
	Asian Paints	45
	JSW Steel	44
Utilities	GVK Power & Infrastructure	75
	Tata Power Co	71
	KSK Energy Ventures Limited	43

## **Disclosure score highlights**

## Carbon Disclosure Leadership Index (CDLI)

For the second year in India, company responses to the Investor CDP information request are scored according to CDP's scoring methodology. This methodology provides for the analysis of company responses in terms of both disclosure – the comprehensiveness of a response - and performance, the company's contribution to action on climate change mitigation and adaptation. When the methodology is applied this results in companies receiving a disclosure score and, where sufficient disclosure exists, a performance band.

In 2010, responding companies received a disclosure score only. For the first time in 2011, the performance aspect of the scoring methodology has been introduced for the India 200.

### **Disclosure scores**

- Disclosure scores are an assessment of the quality and completeness of a company's response; they are not a measure of a company's performance in relation to climate change management
- Scores are plotted over a 100-point normalized scale
- Companies are assessed based on their level of disclosure of carbon emissions measurement techniques and subsequent public disclosure

More information related to scoring can be found in the CDP information request, supporting methodology and guidance documents, as well as within individual company responses at www. cdproject.net.

Analysis of the responses which score highly on disclosure provides insights into the characteristics and common trends among the leading companies on carbon disclosure, and highlights good practices in reporting, governance, risk management and other areas.

## The 2011 Carbon Disclosure Leadership Index (CDLI)

## What does a CDP carbon disclosure score represent?

Generally, companies scoring within a particular range suggest levels of commitment to, and experience of, carbon disclosure. The indicative description of each level is provided below for guidance only; investors should read individual company responses to understand the context for each business.

## Figure 20: Carbon disclosure score

## Low (<50)

Limited or restricted ability to measure and disclose climate related risks, opportunities and overall carbon emissions

## **Midrange** (50-70)

Increased understanding and measurement of company-specific risks and opportunities related to climate change

## High (>70)

Senior management understand the business issues related to climate change and are building climate related risks and opportunities into core business

Disclosure score (Max. 100)

### The journey to leadership



Compliance Managing for value



Strategic advantage

## How is the disclosure score determined?

In determining the disclosure score for each company, we assess the following:

- The level of understanding and disclosure of company-specific exposure to climate-related risks and opportunities
- The level of strategic focus and commitment to understanding the business issues related to climate change, emanating from the top of the organization

- The extent to which a company has measured its carbon emissions
- The extent of the internal data management practices for understanding GHG emissions, including energy use
- The frequency and relevance of disclosure to key corporate stakeholders
- Whether the company uses third party for external verification of emissions data to promote greater confidence and usage of the data

## **Eligibility for the CDL**

In order to be included in the CDLI companies must:

- Respond using the Online Reporting System (ORS) prior to the deadline
- Provide a public response
- Score within the top 10 company scores of the reporting population

More information on the CDLI can be found in the information request, supporting methodology and guidance documents at www.cdproject.net

# What does a performance band represent?

Companies scored on disclosure who achieve a sufficiently high score, over a qualifying threshold of 50, receive a performance band. Disclosure scores of less than 50 do not necessarily indicate poor performance; rather, they indicate insufficient information to evaluate performance. However, it is reasonable to assume that companies which do not disclose well may not be taking much action on climate change.

Performance is grouped in six bands: A, A-, B, C, D and E which are defined by the following characteristics.

To achieve the highest performance band (A), companies not only have to achieve a disclosure score of 50 or above, and a performance score greater than 70, but also meet the following requirements:

- Score maximum performance points on question 13.1a (absolute emissions performance); at least a 2.65% reduction in carbon emissions must have been achieved as a result of emissions reduction activities over the last year
- Disclose gross global scope 1 and scope 2 figures
- Score maximum performance points for verification of scope 1 and scope 2.

### Notes:

 Band A- companies are considered strong performers, with a performance score high enough to be considered for performance band A. However, they do not meet all other requirements to achieve this highest performance band.  CDP reserves the right to exclude a company from the highest performance band (A) if there is anything in its response that calls into question its suitability for inclusion.

Performance scoring is an instructive exercise for all stakeholders. The score provides an indication of the extent to which companies are addressing the potential opportunities and risks presented by climate change. CDP recognizes that this is a process that will evolve over time. It is important for investors to keep in mind that the carbon performance band is not:

- A measure of how low carbon a company is
- An assessment of the extent to which a company's actions have reduced carbon intensity relative to other companies in its sector
- An assessment of how material a company's actions are relative to the business; the score simply recognizes evidence of action.

CDP recommends investors review individual company disclosures in addition to performance rankings in order to gain the most comprehensive understanding of company performance. A listing of the bands for the companies which were scored is included in the Appendix. Scored companies that did not qualify for a performance band appear in the Appendix with a dash (-) in the performance band column.

Figure 21: Carbon performance elements

# Performance band (A is highest)

### Band A/A- (>70)

Fully integrated climate change strategy driving significant maturity in climate change initiatives

### Band B (>50)

Integration of climate change recognised as priority for strategy, not all initiatives fully established

## Band C (>30)

Some activity on climate change with varied levels of integration of those initiatives into strategy

### Band D (>15)

Limited evidence of mitigation or adaptation initiatives and no/limited strategy on climate change

### Band E (≤15)

Little evidence of initiatives on carbon management potentially due to companies just beginning to take action on climate change

No performance score allocated below a disclosure of 50%

The CDP scoring methodology is available on the CDP website. From 2010 onwards, the responses by Indian CDP participants were scored following the global methodology (see Appendix 3).

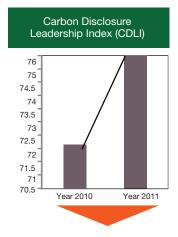
As seen from the India CDLI, the top 10 shows a diverse mix of sectors such as Materials, Energy, Utilities, and Information Technology etc. This suggests that awareness of climate change and its importance to businesses is not confined only to traditional sectors whose operations have a direct bearing on the environment. The quality and completeness of the disclosure of the companies in the CDLI shows that there is an increasing level of interest in climate change by the executive management and it is expected that there will soon be a visible percolation to businesses in the supply chain of these organizations.

It can be seen from the scores that the standard of disclosure is steadily improving among India 200 respondents; the average CDLI score in 2011 is 76, up 4 points from the average CDLI score of 72 in the year of 2010. The highest disclosure score in 2011 is 86, which is only slightly lower compared to 87 in 2010. This may be due to the increasing stringency of the scoring mechanism each year. However, the lowest CDLI score in 2011 is71, up from 64 points in 2010. This indicates that the depth and quality of information provided in response to the CDP questionnaire continues to improve. The CDLI comprises six sectors with three leaders in the Materials sector and two leaders in Information Technology and Utilities each.

Table 5: Companies recognized on Carbon Disclosure Leadership Index (CDLI) in India

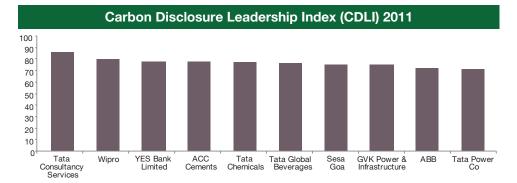
Sector	Company Name	CDLI scores
Information Technology	Tata Consultancy Services	86
Information technology	Wipro	80
Financials	Yes Bank Limited	78
Materials	ACC Cements	78
Materials	Tata Chemicals	77
Consumer Staples	Tata Global Beverages	76
Materials	Sesa Goa	75
Utilities	GVK Power & Infrastructure	75
Industrials	ABB	72
Utilities	Tata Power Co	71

Figure 22: Snapshot of CDLI overview: India CDP 2011



Disclosure is steadily improving among India 200 respondents; the average CDLI score in 2011 is 76, up 4 points from the average CDLI score of 72 in the year of 2010.

The 2011 responses clearly reflect the integration of climate change into the business strategies of the responding Indian companies. As indicated by the responses, management's responsibility and interest in managing climate change risks and benefiting from climate change related opportunities has increased manifold compared to the previous years. Climate change is now looked at as a crucial factor when it comes to understanding the business impact and integrating climate change initiatives into the operations of the organization.



# **Chapter 2: Implications of Climate Change on Indian Industry**

Recognizing that climate change is a major threat, India has engaged actively in multilateral negotiations in the UN Framework Convention on Climate Change, in a positive, constructive and forward looking manner.

The success of the national efforts by the Indian Government will be significantly enhanced provided the developed countries affirm their responsibility for accumulated GHG emissions and fulfill their commitments under the UNFCCC to transfer additional financial resources and climate friendly technologies to support both adaptation and mitigation in developing countries.

India is determined that its per capita GHG emissions will at no point exceed that of the developed countries even as it pursues its development objectives.

# Opportunities presented by the challenge of climate change

India's economy is expected to continue growing at a rapid pace over the next 20 years. An estimated three-fourths of the infrastructure that will be used in India in 2030 is yet to be built. Therefore, India is presented with a unique opportunity to continue its rapid economic growth and develop its infrastructure through a low-carbon pathway. The benefits of a low-carbon economy include meeting the objectives of fast-paced economic growth and addressing the challenge of climate change.

The transition to a low-carbon economy can drive sustainable growth, while managing GHG emissions and addressing the risks of climate change. Although the Government of India (GOI) has already put in place numerous policy initiatives to promote mitigation and adaptation to climate change, a coordinated effort from all sectors of the industry, government and public will be required to take India on its low-carbon growth trajectory.

## Current Regulations and Policies Relevant to Low-Carbon Growth in India

## National Action Plan on Climate Change

The National Action Plan on Climate Change (NAPCC) was formally unveiled in June 2008, endeavoring to outline the strategy for confronting the challenge of sustaining economic growth, while coping with the global threat of climate change. The NAPCC primarily aims at identifying potential opportunities and delineating the path forward for implementation of technologies that address India's twin needs: sustainable development, and adaptation and mitigation of commercial emissions in an accelerated manner. The NAPCC outlines the focal components of the strategy in the form of eight National Missions, representing a multi-pronged, long-term and integrated strategy to achieve key goals in the context of climate change.

Figure 23: The climate change regulatory landscape facing global organizations

### **Drivers**

India has made commitments to lower its emissions intensity to the international community and inaction could hurt India's credibility.

India is particularly vulnerable to the impact of climate change because large portions of its growing population are:

- ▶ Dependent on agriculture as livelihood
- ► Below the poverty line
- Living in coastal areas

India is set to undertake rapid expansion in infrastructure. However, it is equally critical to account for the impact of climate change-related costs, while making technological choices so that the country does not lose out on pertinent opportunities.

India's proactive stance can open diverse avenues for the country to strengthen its global footing through:

- ► International efforts to combat climate change
- ► Clean technologies
- ▶ Sustainable growth

### **Benefits**

If India is proactive, it will have more leverage to press developed nations to do their part by reducing emissions and facilitating technology transfer, adaptation and finance.

By adopting low-carbon growth, India will contribute to the mitigation of climate change and encourage other nations to do the same. This will curb the adverse impact of climate change the world over.

A low-carbon development path would entail less dependence on fossil fuels and increased investments in clean technology, resulting in increased energy security, job creation and economic growth.

Among the eight national missions under the NAPCC, the National Solar Mission, National Mission for Enhanced Energy Efficiency and the National Mission on Sustainable Habitat are the key components of the strategy to achieve climatechange mitigationrelated objectives. The National Mission for a Green India outlines the nation's strategy to enhance carbon sinks, increase the forest cover and preserve biodiversity. The focus of the National Mission for Sustaining the Himalayan Ecosystem, and the National Water Mission is on strategies for adaptation to climate change and management of natural resources. Finally, the National Mission for Strategic Knowledge for Climate Change will promote research and development in the climate change sciences, including seeking international cooperation in technology development, setting up a climate change research fund and disseminating climate change knowledge.

Post the COP15 (Conference of the Parties) in Copenhagen in 2009, India committed to reduce emissions intensity (GHG emissions per unit GDP) by 20-25% below the 2005 levels by 2020. The climate change policies in India are focused to achieve the voluntary targets, while maintaining the growth of the economy.

## **Low Carbon Expert Group**

It is important that the implementation of India's efforts to combat climate change can be channelled through a strategy consistent with the national objectives of poverty alleviation, sustainable development and inclusive growth. For this purpose, the Planning Commission instituted an Expert Group headed by Dr. Kirit Parikh, the former member of India's Planning Commission, to develop a strategy for a low-carbon economy for India. The expert group consists of members from the government, industry, academia and civil society.

The mandate of the low-carbon expert group is to:

- Review the existing studies on lowcarbon growth conducted by various organizations.
- Assess low-carbon options relevant to the Indian economy.
- Draft an action plan comprising critical low-carbon initiatives.
- Provide a list of enabling legislatures, rules and policies to operationalize low-carbon roadmap.

The Low carbon Expert Group has identified the following focus sectors: power, iron and steel, cement, buildings and transportation. The low-carbon options for these sectors are discussed in section 4: "The path to a low-carbon economy".

# Renewable Purchase Obligation and Renewable Energy Certificates

The Central Electricity Regulation Committee (CERC) oversees the Renewable Purchase Obligations (RCO) and Renewable Energy Certificate (REC) mechanism, which aims at meeting the targets for renewable energy specified in NAPCC. Under the NAPCC, the target for the purchase of renewable energy was set at 5% of the total grid power purchase for FY 09-10, with an increase by 1% every year for the next decade. Obligated entities (OEs) such as distribution licensees, captive power plant owners and open access consumers will be mandated to fulfill RPOs.

CERC approved the detailed procedure for the REC mechanism on 1 June 2010. RECs represent an aggregation of certain non-energy and societal beneficial attributes, e.g. environmental and socio-economic benefits, of electricity generated from renewable energy sources and are an ideal solution

to challenges posed by RPOs. These attributes, embodied in the form of certificates, may be traded separately from electricity. One REC will be issued to renewable energy generator for one MWh of renewable electrical energy fed into the grid and the same will remain valid for a period of one year from the date of issuance.

The promotion of renewable energy through PRO and trading of RECs will increase renewable energy generation in India, displace fossil fuels and contribute to India's low-carbon growth.

## Perform Achieve and Trade (PAT)

The Perform, Achieve and Trade (PAT) scheme is an initiative under the National Mission for Enhanced Energy Efficiency. It is a market based mechanism to enhance cost-effectiveness of improvements in the energy efficiency of Designated Consumers. The DCs are energy-intensive facilities / establishments identified across eight energy intensive sectors by Bureau of Energy Efficiency (BEE) in Phase I for the period 2011-2014. These sectors include power, iron and steel, cement. fertilizer, pulp and paper, aluminum, textiles and chlor-alkali. So far about 477 DCs have been identified by BEE.

The scheme received the in-principal approval of the Prime Minister's Council on Climate Change in August 2009 and the approval of the Union Cabinet on June 2010. The regulatory functions of the PAT scheme will be implemented by BEE and Energy Efficiency Services Ltd. (EES) under the Ministry of Power. BEE is expected to announce energy efficiency targets for DCs by end 2011.

Each DC will be mandated to reduce specific energy consumption (SEC) by a fixed percentage within a specified time period of three years. Under the scheme, DCs will have the choice to reduce energy consumption either through the implementation of energy efficiency measures or through the purchase of energy saving certificates (ESCerts). If DC is capable of exceeding its energy-saving targets, then through the PAT scheme, DC can avail the ESCerts and sell them to other DCs.

The PAT scheme can make a vital contribution to India's low-carbon growth through the promotion of investments in energy-efficiency measures and mandatory energy efficiency benchmarks for energy-intensive industries.

## **Energy Conservation Building Code**

The Ministry of Power Launched the Energy Conservation and Building Code (ECBC) in 2007. The code sets minimum energy efficiency standards for commercial buildings. ECBC encourage energy efficient buildings or the retrofit of buildings such that it does not constrain the building function, comfort, health or productivity of the occupants and life cycle costs are minimized. ECBC is applicable to buildings or building complexes that have a connected load of 500 KW or greater or a contract demand of 600 kVA or greater. Energyefficiency standards set by ECBC code will contribute to energy savings from buildings, a major source of GHG emissions in India.

## National Urban Transport Policy and Jawaharlal Nehru Urban Renewable Mission

The Ministry of Urban Development, through the National Urban Transport Policy (NUTP) (2006), has formulated a central policy to enable and guide state-level action plans within an overall framework. The policy proposes a much closer integration between land use and transport planning as well as

emphasizes the greater use of public transport and non-motorized modes of travel.

Set up in 2005, the Jawaharlal Nehru National Urban Renewable Mission (JNNURM) seeks to bring about comprehensive improvements in urban infrastructure, contributing substantial funds for this purpose and promoting reforms that would make the investments sustainable. The measures promoted under JNNURM and NUTP to improve India's transport infrastructure could have a major impact on reducing GHG emissions from India's transport sector.

## Standards and Labeling Scheme

The standards and labeling scheme implemented by BEE is aimed at promoting energy-efficient appliances and increasing awareness about energy efficiency among end users. The scheme currently covers 10 categories of high-energy consuming domestic and industrial equipment. It targets the display of energy performance labels on household and other equipment. The labeling scheme is currently mandatory for frost-free refrigerators, air conditioners, tubular fluorescent lamps and distribution transformers. Energyefficient appliances are an important aspect of low-carbon growth as they can result in energy savings in buildings as well as industries.

## **Clean Energy Cess**

India has announced a levy – a clean energy cess – on coal, at the rate of Rs. 50 (~USD 1) per ton, which will apply to both domestically, produced and imported coal.

- This money will go into a National Clean Energy Fund that will be used for funding research, innovative projects in clean energy technologies, and environmental remedial programmes.
- The expected earnings from this cess is around USD 500 million for the financial year 2010-11

# Reducing Emissions from Deforestation and Forest Degradation (REDD+)

REDD is the global endeavour to create an incentive for developing countries to protect, better

manage and save their forest resources, thus contributing to the global fight against climate change. REDD+ goes beyond merely checking deforestation and forest degradation, and includes incentives for positive elements of conservation, sustainable management of forests and enhancement of forest carbon stocks.

India has announced a number of initiatives related to its preparedness for REDD+:

- A Technical Group has been set up to develop methodologies and procedures to make assessment and monitoring of REDD+ actions.
- A National REDD+ Coordinating Agency has been given in-principle approval.
- Methodologies for National Forest Carbon Accounting are being institutionalized.

## Renewable Energy and Clean Technologies

Responding to the need for greater energy security and reduced emissions through a lower reliance on fossil fuels, the Ministry of Power has expansive plans for the renewable energy sector in India. Renewable energy currently comprises 9% of India's 145 GW present capacity (large hydro accounts for a further 25 %). Of the 80 GW of capacity proposed to be added during the 11th five year plan (2007-12), 17.5 % to 25 % is envisaged to come from renewable sources. This represents significant businesses opportunities for providers of renewable energy and its many affiliated industries through an expanded market.

Renewable Energy Certificate: Under NAPCC, the target for renewable energy purchase for FY 2009-10 has been set as 5% of total grid power purchase with a provision of increasing it by 1% every year for the next 10 years. With these regulations in place, the Obligated Entities (OEs) like the Distribution Licensees, Captive Power Plant Owners and Open Access Consumers will be mandated to fulfill their Renewable Purchase Obligations (RPOs). The State **Electricity Regulatory Commissions** (SERCs) will be setting the target of RPOs for all the Obligated Entities within the state. This is going to be considered as one of the key efforts at the national level to combat climate change.

## **Chapter 3: Sectoral Analysis**

The level of climate change related risks, opportunities and awareness are highly sector specific. Hence it is imperative to consider a sector specific analytical approach when comparing companies on the basis of their response to CDP.

The sectors who responded to CDP 2011 are as follows:

## **Consumer discretionary (4)**

(Including sectors such as automotive, household durable goods, textiles & apparel, leisure equipment, hotels, restaurants, leisure facilities, media production & services and consumer retailing)

## **Consumer staples (3)**

(Including sectors such as manufacturers & distributors of food, beverages & tobacco, producers of non-durable household goods and personal products, food & drug retailing companies, hypermarkets and consumer supercenters)

## Energy (5)

(Includes business whose activities involve construction or provision of oil rigs, drilling equipment and other energy related service and equipment, including seismic data collection. Companies engaged in the exploration, production, marketing, refining and/or transportation of oil and gas products)

## Financials (9)

(Includes companies involved in activities associated with banking, mortgage finance, consumer finance, specialized finance, investment banking and brokerage, asset management and custody, corporate lending, insurance, financial investment and real estate, including REITs)

## Industrials (7)

(Includes companies whose businesses are dominated by one of the following activities: the manufacture and distribution of capital goods, including aerospace & defense, construction, engineering & building products, electrical equipment and industrial machinery, provision of commercial services and supplies, including printing,

employment, environmental and office services, and provision of transportation services, including airlines, couriers, marine, road & rail and transportation infrastructure)

## **Information Technology (7)**

(Includes companies associated with Technology Software & Services and Technology Hardware & Equipment)

## Materials (8)

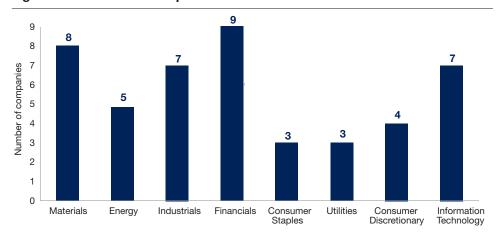
(Encompasses a wide range of commodity-related manufacturing industries such as chemicals, construction materials, glass, paper, forest products and related packaging products and metals, minerals and mining companies, including producers of steel)

## **Utilities (3)**

(Encompasses those companies considered electric, gas or water utilities or companies that operate as independent producers and/or distributors of power, including both nuclear and non-nuclear facilities)

The number of companies responding from each sector is given in the graph below:

Figure 24: Number of companies



The most prominent trend that can be seen this year is that the Financials sector has the highest number of respondents (9). Materials sector has the second highest number of respondents (8) with the Information Technology and Industrials sector at a close third (7). It is interesting to note that companies from the Information Technology and Financials sector have responded although climate change related risks are known and perceived to be lesser for both these sectors compared to many others. One reason could be that IT companies are steadily recognizing the implications climate change can have on

their operations. Some of the Financial sector companies have recognized climate change as an opportunity as it may lead to a rise in the number of insurance policies being purchased from sectors that are exposed to climate change driven risks.

The level of awareness of companies towards climate change can be highly sector specific as the level of exposure to climate related issues vary considerably across sectors. There is no A or B band in any of the sectors.

## **Consumer discretionary**

### Companies covered

- 1. Godrej Industries
- 2. Indian Hotels Co.
- 3. Mahindra & Mahindra
- 4. Titan Industries

## Major Risks and Opportunities identified

### Opportunities:

- Opportunity to earn money through domestic and international schemes like CDM and PAT
- Changing consumer behaviour offers opportunity to penetrate new markets and offer new kinds of services
- Opportunity to invest in Renewable Energy and reduce dependency on fossil fuels.

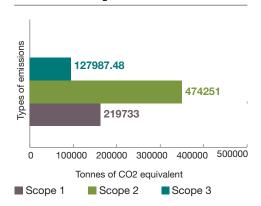
### Risks:

- Regulatory issues like Pollution control, Carbon taxes
- Decrease in the number of tourists due to adverse climatic conditions
- Reputational damage

### Measures being taken to mitigate climate change risks.

- Focusing on energy saving measures
- Implementation of energy efficient Green Building
- Implementation of water conservation measures
- Using of solar panels for cooking and water heating
- Increasing the share of renewable energy in the energy supply mix

Figure 25: Emissions disclosed in metric tonnes of CO<sub>2</sub> equivalent



"Market for naturally derived products may increase, which will create opportunity for us in term as of expanding capacities. We keep ourselves updated in understanding market trends and supply demand situation with respect to our line of products. We work out financial viability of projects and are ready with long range plans."

## Godrej Industries

# **Energy**

#### **Companies covered**

- 1. Bharat Petroleum Corporation
- 2. Cairn India
- 3. Essar Oil
- 4. Hindustan Petroleum Corporation
- 5. Oil & Natural Gas Corporation

#### Major Risks and Opportunities identified

#### Opportunities:

- Opportunity to earn revenues from mechanisms like PAT and CDM
- Entering new and growing markets like bio fuels
- Opportunity to invest in renewable energy
- Improving energy efficiency at plants and reducing fuel costs

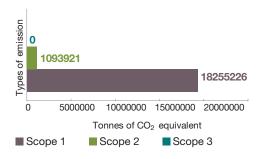
#### Risks:

- Stringent regulations against air pollution
- National and international initiatives to curb climate change like the National Action Plan for Climate Change
- Refineries located close to seas would be affected from extreme storms and cyclones
- Possible conflict with local community

#### Measures being taken to mitigate climate change risks.

- Improving energy efficiency at refineries and plants
- Developing a Climate Change policy and close monitoring of upcoming regulations
- Implementing energy efficiency and CDM projects

Figure 26: Emissions disclosed in metric tonnes of CO<sub>2</sub> equivalent



"Reputation is an intangible asset and no potential financial implication can be ascertained for this opportunity. EOL has initiated continuous reporting of its emissions in global forums such as CDP and is in the process of implementation of a continuous emission monitoring and management system."

#### **Essar Oil Limited**

# **Financials**

#### Companies covered

- 1. DLF
- 2. HDFC Bank Ltd.
- 3. ICICI Bank Ltd.
- 4. IDBI Bank Ltd
- 5. Indusind Bank
- 6. Infrastructure Development Finance Company (IDFC)
- 7. Reliance Capital Ltd
- 8. State Bank of India
- 9. YES BANK Limited

#### **Top Scores**

Companies	Disclosure Score
YES BANK Limited	78

#### Major Risks and Opportunities identified

#### Opportunities:

- Government's focus on renewable and clean energy provides significant investment opportunity for the banks
- Extreme weather conditions may fuel the need for change in insurance products across the health sector, agriculture and building contractors
- Unexpected changes in the fuel and commodity prices provide the opportunity to diversify the financial portfolio

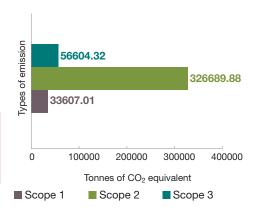
#### Risks:

- Upcoming rules and regulations to mitigate climate change can change the norms of lending and affect the operations of the banks
- Indirect risk from climate change as most of the clients are from sectors like infrastructure, power, steel which are exposed to risks from climate change.
- Extreme weather conditions may affect Insurance which is a direct business of the bank.
- There may be credit risks from changing consumer behavior.

#### Measures being taken to mitigate climate change risks.

- Proper portfolio management
- Identifying investment opportunities in low carbon infrastructure
- Investing in clean energy, clean technology across the country

Figure 27: Change in Absolute
Scope 1 & 2 emissions
from previous year



"IDFC has identified low-carbon infrastructure businesses as an area of strategic focus and has already made several investments in such entities. Its private equity business is currently India's largest Cleantech investor."

# Infrastructure Development Financial Corporation

# **Industrials**

#### Companies covered

- 1. ABB
- 2. Crompton Greaves
- 3. IL&FS Transportation Networks
- 4. ITC Limited
- 5. Larsen & Toubro
- 6. Shree Cement
- 7. Tata Motors

# Major Risks and Opportunities identified Opportunities:

- Product labeling regulations & standards provide greater opportunities for business since many products have to meet required international certifications
- Opportunity to earn revenues through mechanism like PAT, CDM etc
- Catering to the growing demand for energy efficient equipments.
- Changing weather patterns would lead to demand for new varieties of construction materials and new types of infrastructures.

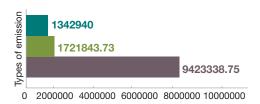
#### Risks:

- Introduction of Carbon Taxes would impact costs directly or indirectly
- Introduction of new mechanisms like PAT would lead to penalization for non compliance
- Rise in sea levels or extreme weather conditions may lead to disruption of supply and distribution of goods.
- Non availability of water would lead to disruption in the operations

#### Measures being taken to mitigate climate change risks.

- Taking on voluntary emission reduction targets and continuously striving to cut down emissions.
- Identifying new areas of investment and new business lines like energy efficient equipments etc.
- Development of board level strategies for identifying and mitigating climate change related issues.

Figure 28: Emissions disclosed in metric tonnes of CO<sub>2</sub> equivalent



Tonnes of CO<sub>2</sub> equivalent

"Since we are committed to improve the climate we are going to install the same in spite of its higher costs. The projects identified under the PAT scheme after audits are to be implemented to achieve the targets. The cost of implementation will be borne by the company and it will depend on the projects identified. Since we are committed to Energy Conservation, all the identified projects will be implemented in spite of its costs."

#### **Shree Cement**

# Information technology

#### **Companies covered**

- 1. HCL Technologies
- 2. Infosys
- 3. Patni Computers
- 4. Satyam Computers
- 5. Tata Consultancy Services
- 6. Tech Mahindra
- 7. Wipro

#### **Top Scores**

•	
Companies	Disclosure Score
Tata Consultancy Services	86
Wipro	80

#### Major Risks and Opportunities identified

#### Opportunities:

- Opportunity to earn revenue through selling of Carbon Credits.
- Mandatory regulations for emission reporting will generate new demands for automated emission reporting tools
- Emission regulations and compliances provide opportunity for new offerings & services in Green IT domain.

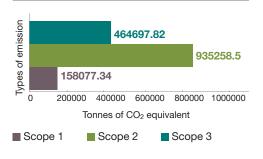
#### Risks:

- Government regulations like National Action Plan on Climate Change will make it mandatory for all sectors to reduce their energy consumption.
- Extreme weather conditions can damage offices leading to disruption of normal services.
- Uncertainty regarding climatic issues can hamper the clients who have bigger exposure to climate change.

#### Measures being taken to mitigate climate change risks.

- Implementing new energy efficient buildings, Green Buildings
- Practicing rain water harvesting.
- Making employees aware of the adverse effects of climate change
- Covering employees under Insurance Policies

Figure 29: Emissions disclosed in metric tonnes of CO<sub>2</sub> equivalent



"Increasing energy prices have a direct impact on our operating costs as our major operating costs is from fuel and power. To mitigate such risks we are getting into long term renewable energy purchase which will certainly reduce our environmental impact as well as our costs. We are procuring all BEE energy star labeled products for HVAC, lighting etc. We are committed to increase our green energy input to safeguard against the future emissions regulations mentioned above."

#### **HCL Technologies**

# **Materials**

#### Companies covered

- 1. ACC
- 2. Ambuja Cements
- 3. Asian Paints
- 4. Hindustan Zinc
- 5. JSW Steel
- 6. Sesa Goa
- 7. Sterlite Industries
- 8. Tata Chemicals

#### **Top Scores**

•	
Companies	Disclosure Score
ACC	78
Tata Chemicals	77
Sesa Goa	75

#### Major Risks and Opportunities identified

#### Opportunities:

- Opportunity to earn money through domestic and international schemes like CDM and PAT
- Increased focus on energy efficiency will lead to lowering of fuel costs.
- Extreme weather conditions may lead to increased demand for climate resistant materials.
- Opportunity to forge better relationship with local community

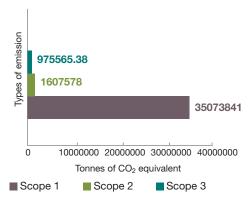
#### Risks

- Regulatory issues like PAT, Pollution control, Carbon taxes.
- Disruption of manufacturing and production due to extreme weather conditions.
- Changing consumer preferences and possible conflict with local community
- Rising cost of raw materials as resources get scarce.

#### Measures being taken to mitigate climate change risks.

- Installation of energy efficiency systems.
- Improving utilization of Bio-fuels
- Rainwater harvesting
- Reuse and recycling of process water.
- Utilization of waste energy.

Figure 30: Emissions disclosed in metric tonnes of CO<sub>2</sub> equivalent



"ACC has been pioneer in blended cement production and has used significant quantity of fly ash and slag. We have utilized resources efficiently to deliver another year of strong financial performance. ACC Cement has generated superior economic value and shared it with its stakeholders. Our growth is complemented with growth of our stakeholders."

# ACC Sustainable Development Report 2010

# **Utilities**

#### **Companies covered**

- 1. GVK Power
- 2. KSK Energy
- 3. Tata Power

#### **Top Scores**

Companies	Disclosure Score
GVK Power & Infrastructure	75
Tata Power Co	71

#### Major Risks and Opportunities identified

#### Opportunities:

- Government of India is promoting Renewable Energy hence there are opportunities to earn revenues through various schemes like CDM and RECs.
- Opportunity to forge better relationships with stakeholders by disclosing climate change performances.
- Extreme weather conditions will increase the demand for air conditioning.
   This in turn would lead to greater demand for power
- Opportunity to diversify into power generation from Renewable Energy sources like wind, hydro etc.

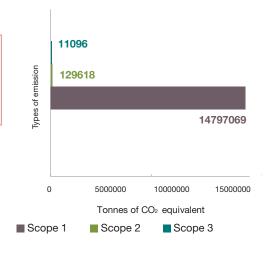
#### Risks:

- Rise in fuel costs in future would affect operational costs.
- Implementation of Cap and Trade scheme in future would impose limits to the amount of emissions.
- Possibility of introduction of fuel taxes based on emissions
- Extreme weather conditions would hamper operations

#### Measures being taken to mitigate climate change risks

- Adoption of lower emission technologies
- Adopting energy efficient equipments
- Implementing newer technologies like Supercritical Technology
- Reporting the company's performance related to Environment Health and Safety

Figure 31: Emissions disclosed in metric tonnes of CO<sub>2</sub> equivalent



"We have adopted GRI G3 guidelines to disclose the company's performance in Sustainability. We are also a part of the Carbon Disclosure Project (CDP). The Company's annual report includes a section of Safety, Health, Environment and Sustainability that provides details to the stakeholders. Performance is being reviewed on annual basis."

#### **Tata Power Company**

# **Consumer staples**

#### Companies covered

- 1. Godrej Consumer Products
- 2. Procter & Gamble Company
- 3. Tata Global Beverages

#### **Top Scores**

Companies	Disclosure Score
Tata Global Beverages	76

# Major Risks and Opportunities identified Opportunities:

- Work with supply chain partners and stakeholders in identifying and developing climate-change resistant varieties of food, consumer products.
- Develop and tap into the green-product market, creating awareness amongst consumer in the process.
- Opportunity to forge better relationship with local community

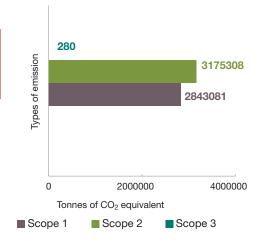
#### Risks:

- Inconsistent supply of raw materials.
- Increased product cost and volatility.
- Introduction of stringent regulations regarding packaging and use of chemicals in production and manufacturing processes.
- More stringent regulations regarding labour practices, working hours and wages.

#### Measures being taken to mitigate climate change risks.

- Installation of energy efficient systems and processes.
- Development of more efficient consumer products like resistant varieties of tea and coffee, and ariel gel which require 20-50% less energy by washing at low temperature.
- Reuse and recycling of process water.

Figure 32: Emissions disclosed in metric tonnes of CO<sub>2</sub> equivalent



"For P&G, sustainability is a responsibility and an opportunity to make improvements that matter, and to make life better for the greatest number of lives. Our commitment begins with our Purpose, Values and Principles, in which sustainability is the driving force."

## Procter & Gamble Sustainability Report 2010

# Appendix I: Company Responses to CDP 2011, CDP 2010, CDP 2009, CDP 2008 & CDP 2007 and Disclosure scores

Sector	Company Name	Final Disclosure scores	2007	2008	2009	2010	2011
	ŏ					20	
Consumer Discretionary	Indian Hotels Co.	56	NR	AQ	AQ	AQ	AQ
	Titan Industries	55		NR	NR	AQ	AQ
	Godrej Industries	51		AQ	AQ	AQ	AQ
	Mahindra & Mahindra	53	NR	NR	AQ	AQ	AQ
	Tata Motors	44	NR	AQ	AQ	AQ	AQ
Consumer Staples	Tata Global Beverages	76					AQ
	Godrej Consumer Products	57		AQ	AQ	AQ	AQ
	Procter & Gamble Company	49				AQ	AQ
Energy	Essar Oil	69	AQ	NR	NR	NR	AQ
	Hindustan Petroleum Corporation	46	NR	AQ	AQ	AQ	AQ
	Cairn India	43		AQ	AQ	AQ	AQ
	ONGC	34	AQ	AQ	AQ	AQ	AQ
	Bharat Petroleum Corporation	39	AQ	AQ	AQ	AQ	AQ
Financials	YES BANK Limited	78		AQ	AQ	AQ	AQ
	HDFC Bank Limited	55	AQ	AQ	AQ	AQ	AQ
	ICICI Bank Limited	67	AQ	AQ	AQ	AQ	AQ
	Infrastructure Development Finance Company	57	NR	AQ	AQ	AQ	AQ
	State Bank of India	24	NR	NR	AQ	AQ	AQ
	Indusind Bank	50				AQ	AQ
	Reliance Capital	34	AQ	AQ	AQ	AQ	AQ
	IDBI Bank Ltd	28				AQ	AQ
	DLF	6	AQ	NR	NR	DP	AQ
Industrials	Shree Cement	59				AQ	AQ
	ABB	72	AQ	AQ	AQ	AQ	AQ
	ITC Limited	64	AQ	AQ	AQ	AQ	AQ
	Larsen & Toubro	69	NR	NR	AQ	AQ	AQ
	Crompton Greaves	52	NR	NR	AQ	AQ	AQ
	IL&FS Transportation Networks	32					AQ

Sector	Company Name	Final Disclosure scores	2007	2008	2009	2010	2011
Information Technology	Wipro	80	AQ	AQ	AQ	AQ	AQ
	HCL Technologies	66	NR	DP	NR	NR	AQ
	Infosys	66	AQ	AQ	AQ	AQ	AQ
	Tata Consultancy Services	86	NR	AQ	AQ	AQ	AQ
	Tech Mahindra	52					AQ
	Mahindra Satyam	51	NR	NR	NR	NR	AQ
	igate Patni	15	NR	NR	NR	NR	AQ
Materials	ACC	78	NR	NR	NR	AQ	AQ
	Tata Chemicals	77		NR	AQ	AQ	AQ
	Sesa Goa	75	AQ	AQ	AQ	AQ	AQ
	Sterlite Industries	62	NR	AQ	AQ	AQ	AQ
	Hindustan Zinc	53	NR	AQ	AQ	AQ	AQ
	Ambuja Cements	46	NR	AQ	AQ	AQ	AQ
	Asian Paints	45	NR	AQ	AQ	AQ	AQ
	JSW Steel	44	AQ	AQ	AQ	AQ	AQ
Utilities	GVK Power & Infrastructure	75			NR	NR	AQ
	Tata Power Co	71	NR	AQ	AQ	AQ	AQ
	KSK Energy Ventures Limited	43			NR	NR	AQ

Other Responding Companies
Essar Steel Limited
Financial Technologies (INDIA)
Godrej Interio Division-Godrej & Boyce Mfg.Co.Ltd.
Jubilant Life Sciences Ltd
MindTree Ltd
Mumbai International Airport Private Limited
SRF Chemicals Business
Tata Capital Limited

# Appendix II: Global Key trends summary<sup>1</sup>

This table outlines some of the key findings from CDP 2011 by geography or industry data-set.<sup>2</sup>

		Sample: geography/number of compan											nies				
	Key Trends Indicators	Asia ex-JICK 170*4	Australia 200	Benelux 150**	Brazil 80	Canada 200	Central & Eastern Europe 100	China 100	Emerging Markets 800	Europe 300	FTSE All-World 800	France 250	Germany and Austria 250 *	Global 500	Global Electric Utilities 250	Global Transport 100	lberia 125
	% of sample answering CDP 2011 <sup>3</sup>	26	50	35	67	54	22	11	36	91	80	35	51	81	39	49	40
	Number of companies answering CDP 2011 <sup>3</sup>	45	101	52	53	108	22	11	287	272	625	87	128	405	98	49	50
Governance	% of responders with <b>Board or other</b> <b>executive level</b> responsibility for climate change	65	76	79	78	57	33	64	71	85	72	77	63	73	78	69	79
Gov	% of responders with <b>incentives</b> for the management of climate change issues	49	53	60	46	44	25	82	55	70	71	63	38	72	62	69	56
- Afg	% of responders with climate change integrated into their business strategy	84	84	89	80	73	50	73	79	92	89	88	69	90	93	88	96
Strategy	% of responders <b>engaging policymakers</b> on climate issues to encourage mitigation or adaptation	67	75	79	70	63	17	36	67	84	81	76	54	84	91	84	71
	% of responders with <b>emissions</b> reduction targets	67	46	68	30	34	50	27	55	81	77	69	48	76	62	73	65
Targets & Initiatives	% of responders with <b>absolute</b> emissions reduction targets	42	26	40	26	16	25	9	32	42	45	33	28	44	41	33	31
ets & Ir	% of responders with active emissions reduction initiatives in the reporting year	91	89	91	83	88	50	82	83	97	95	95	73	97	87	94	94
Targ	% of responders indicating that their products and services directly <b>help third parties to avoid GHG emissions</b>	63	60	66	59	54	25	45	54	69	70	65	62	70	80	59	79
sks & ortunities	% of responders seeing <b>regulatory risks</b>	77	82	77	76	67	50	55	77	80	76	81	55	79	94	86	85
Ris Oppo	% of responders seeing <b>regulatory opportunities</b>	77	76	83	83	69	50	55	76	88	79	88	67	81	91	80	88
Emissions Data	% of responders whose absolute emissions (Scope 1 & 2) have <b>decreased</b> compared to last year due to emissions reduction activities	30	28	47	11	29	33	9	31	48	46	35	19	48	23	33	52
missio	% of responders <b>independently verifying</b> any portion of <b>Scope 1</b> emissions data <sup>6</sup>	47	45	70	43	34	33	9	48	74	62	64	40	67	68	61	77
ш	% of responders independently verifying any portion of Scope 2 emissions data <sup>6</sup>	51	45	66	41	21	25	0	47	69	58	53	34	61	34	53	73

					S	amp	ole: g	eog	raph	y/nı	ımb	er of	com	panies		
India 200	Ireland 40	Italy 100*	Japan 500	Korea 200	Latin America 50	New Zealand 50	Nordic 260*	Russia 50	South Africa 100	Switzerland 100	Turkey 100	UK FTSE 350	US S&P 500	Overall <sup>5</sup>	Key Trends Indicators	
28	49	34	41	47	58	42	55	8	83	59	17	69	68	N/A	% of sample answering CDP 2011 <sup>3</sup>	
56	19	34	205	94	29	21	143	4	83	59	17	240	340	2057	Number of companies answering CDP 2011 <sup>3</sup>	
78	68	59	91	62	73	60	65	67	90	69	60	93	49	68	% of responders with <b>Board or other executive level</b> responsibility for climate change	Governance
49	47	47	71	55	32	45	46	33	55	37	67	65	63	55	% of responders with <b>incentives</b> for the management of climate change issues	Gove
87	68	81	88	74	73	70	87	33	77	75	73	80	78	79	% of responders with climate change integrated into their business strategy	- Ag
73	53	66	77	65	68	45	73	33	77	61	47	73	70	68	% of responders <b>engaging policymakers</b> on climate issues to encourage mitigation or adaptation	Strategy
49	47	66	94	57	32	50	67	33	51	58	33	66	65	60	% of responders with emissions reduction targets	õ
7	26	47	69	33	23	35	32	33	26	24	33	32	40	36	% of responders with <b>absolute</b> emissions reduction targets	Targets & Initiatives
91	89	91	94	59	86	70	89	67	94	88	73	93	90	87	% of responders with active emissions reduction initiatives in the reporting year	ets & Ir
56	32	59	72	53	59	40	73	67	54	61	53	56	60	59	% of responders indicating that their products and services directly help third parties to avoid GHG emissions	Targ
76	68	75	90	70	73	70	77	33	96	58	73	80	63	73	% of responders seeing <b>regulatory risks</b>	Risks & Opportunities
87	58	78	82	63	73	50	80	67	91	68	80	77	63	73	% of responders seeing <b>regulatory</b> opportunities	Ris Oppor
18	32	41	40	40	9	25	39	33	40	31	33	40	38	33	% of responders whose absolute emissions (Scope 1 & 2) have <b>decreased</b> compared to last year due to emissions reduction activities	Emissions Data
40	63	72	35	53	59	40	51	33	49	39	33	49	42	45	% of responders <b>independently verifying</b> any portion of <b>Scope 1</b> emissions data <sup>6</sup>	missio
42	53	59	37	54	50	40	43	0	50	37	27	46	37	40	% of responders independently verifying any portion of Scope 2 emissions data <sup>6</sup>	ш

The key trends table provides a snapshot of response trends based on headline data. That is, responses given to main questions without assessment of detailed explanations in follow up questions. The numbers in this table are based on the online responses submitted to CDP as of 7 September 2011. They may therefore differ from numbers in the rest of the report which are based on the number of companies which responded by the applicable local deadline (e.g. 30 June 2011). Please refer to the CDP website and the local reports for an updated version of this table.

In some cases, the number of companies in a sample may differ slightly from the named sample size due to takeovers, mergers, acquisitions and duplicate share listings. Includes offline responses to the CDP 2011 questionnaire

and indirect answers submitted by parent companies. All other key trend indicators are based on direct and online

company responses only.

4. Asia excluding Japan, India, China and Korea (ex-JICK).

Includes responses across all samples as well as responses submitted by companies not included in specific geographic or industry samples in 2011.

This takes into account companies reporting that data 5.

verification is either complete of underway.

<sup>\*</sup>Denotes change in number of companies in sample compared to previous year.

<sup>\*\*</sup>Denotes new sample for 2011.

# **Appendix III: List of CDP India 200 Companies**

Company	Sector	2011 response status	2010 response status	Carbon disclosure score	Carbon Performance Band	Non Public	Total Emissions	Scope 1	Scope 2	Scope 3
ABB	Industrials	AQ	AQ	72	С	Public	1469000	714000	755000	645000
ACC	Materials	AQ	AQ	78	С	Public	14191480.46	13717736.46	473744.00	688856
Adani Enterprises	Industrials	NR	NR	N/A	N/A	N/A	-	_	-	
Adani Power Ltd	Utilities	QF	NR	N/A	N/A	N/A	-	-	-	
Aditya Birla Nuvo	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	
Allahabad Bank	Financials	NR	NR	N/A	N/A	N/A			-	
Alstom Projects India	Utilities	AQ (SA)	AQ	N/A	N/A	N/A	-	=	-	
Ambuja Cements	Materials	AQ	AQ	46	N/A	Public	14118160	13785266.00	332894.00	Not reported
Andhra Bank	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Apollo Hospitals Enterprises	Healthcare	NR	-	N/A	N/A	N/A	-	-	-	-
Areva T&D India	Utilities	AQ (SA)	AQ	N/A	N/A	N/A	-	-	-	-
Ashok Leyland	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Asian Paints	Materials	AQ	AQ	45	N/A	Public	115594.65	71594.24	44000.41	Not reported
Aurobindo Pharma	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-
Axis Bank	Financials	NR	DP	N/A	N/A	N/A	-	-	-	-
Bajaj Auto	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Bajaj Finserv	Financials	NR	DP	N/A	N/A	N/A	-	-	-	-
Bajaj Holdings & Invst. (BHIL)	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Bank of Baroda	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Bank of India	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
BGR Energy Systems Ltd	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Bharat Electronics	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Bharat Forge	Consumer Discretionary	QF	AQ	N/A	N/A	N/A	-	-	-	-
Bharat Heavy Electricals	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Bharat Petroleum Corporation	Energy	AQ	AQ	39	N/A	Public	3925446	3699579.00	225867.00	Not reported
Bharti Airtel	Telecommuni- cations Services	NR	NR	N/A	N/A	N/A	-	-,	-	-
Bhushan Steel	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
Biocon	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-
Bosch India	Consumer Discretionary	NR	DP	N/A	N/A	N/A	-	-	-	-
Britannia Industries	Consumer Staples	NR	NR	N/A	N/A	N/A	-	-	-	-
Cadila Healthcare	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-
Cairn India	Energy	AQ	AQ	43	N/A	Not public	594303	589689.00	4614.00	Not reported
Canara Bank	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Castrol India	Materials	AQ (SA)	AQ	N/A	N/A	N/A	-	-	-	-
-										

Company	Sector	2011 response status	2010 response status	Carbon disclosure score	Carbon Performance Band	Non Public	Total Emissions	Scope 1	Scope 2	Scope 3
Central Bank of India	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
CESC Ltd	Utilities	CR	NR	N/A	N/A	N/A	-	-	-	-
Cipla	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-
Coal India	Materials	NR	-	N/A	N/A	N/A	-	-	-	_
Colgate Palmolive India	Consumer Staples	AQ (SA)	AQ	N/A	N/A	N/A	-	-	-	-
Container Corporation of India	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Coromandel International	Materials	NR	-	N/A	N/A	N/A	-	-	-	-
Corporation Bank	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Crompton Greaves	Industrials	AQ	AQ	52	D	Public	190556	149073.00	41483.00	34792
Cummins India	Consumer Discretionary	AQ (SA)	AQ	N/A	N/A	N/A	-	-	=	-
D B Realty	Financials	NR	-	N/A	N/A	N/A	-	_	-	-
D.B.Corp	Financials	NR	-	N/A	N/A	N/A	-	-	-	-
Dabur India	Consumer Staples	NR	NR	N/A	N/A	N/A	-	-	-	-
Dish TV India	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Divi's Laborato-ries	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	_
DLF	Financials	AQ	DP	6	N/A	Not public	0	Not reported	Not reported	Not reported
Dr. Reddy's Laboratories	Healthcare	QF	NR	N/A	N/A	N/A	-	-	-	-
Educomp Solutions	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
EIH	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Emami Ltd.	Consumer Staples	NR	NR	N/A	N/A	N/A	-	-	-	-
Engineers India Ltd	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	_
Essar Oil	Energy	AQ	NR	69	С	Public	2482896	2407663.00	75233.00	Not reported
Exide Industries	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Federal Bank	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Fortis Healthcare Ltd.	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-
GAIL	Energy	CR	NR	N/A	N/A	N/A	-	-	-	-
Gillette India	Consumer Staples	AQ (SA)	AQ	N/A	N/A	N/A	-	-	-	-
GlaxoSmithKline Consumer Health	Consumer Staples	AQ (SA)	NR	N/A	N/A	N/A	-	-	-	-
GlaxoSmithKline Pharmaceuticals	Healthcare	AQ (SA)	AQ	N/A	N/A	N/A	-	-	-	-
Glenmark Pharmaceuticals	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-

				<u>e</u>						
Company	Sector	2011 response status	2010 response status	Carbon disclosure score	Carbon Performance Band	Non Public	Total Emissions	Scope 1	Scope 2	Scope 3
GMR Infrastructure	Utilities	NR	DP	N/A	N/A	N/A	-	-	-	-
Godrej Consumer Products	Consumer Staples	AQ	AQ	57	Е	Not public	46240	24460.00	21780.00	Not reported
Godrej Industries	Consumer Discretionary	AQ	AQ	51	Е	Not public	122663	87189.00	35474.00	Not reported
Grasim Industries	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Great Eastern Shipping Co.	Industrials	QF	NR	N/A	N/A	N/A	-	-	-	-
Gujarat Gas Company Limited	Utilities	CR	-	N/A	N/A	N/A	-	-	=	-
Gujarat State Petronet	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
GVK Power & Infrastruc- ture	Utilities	AQ	NR	75	D	Not public	2759994	2630376.00	129618.00	7895
Havells India	Industrials	NR	-	N/A	N/A	N/A	-	-	-	-
HCL Technologies	Information Technology	AQ	NR	66	D	Public	123744	24373.00	99371.00	40946
HDFC Bank Ltd	Financials	AQ	AQ	55	D	Public	239540	29724.00	209816.00	33870
Hero Honda Motors	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Hindalco Industries	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
Hindustan Copper	Materials	NR	_	N/A	N/A	N/A	_	_	-	
Hindustan Petroleum Corporation	Energy	AQ	AQ	46	N/A	Not public	3169870	3076648.00	93222.00	Not reported
Hindustan Unilever	Consumer Staples	AQ (SA)	AQ	N/A	N/A	N/A	-	-	-	-
Hindustan Zinc	Materials	AQ	AQ	53	Е	Not public	4146053	3771246.00	374807.00	123420
Housing Development & Infrastructure	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Housing Development Finance Corporation	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
ICICI Bank Limited	Financials	AQ	AQ	67	E	Public	54806.22	2130.54	52675.68	4224.82
IDBI Bank Ltd	Banks	AQ	AQ	28	N/A	Public	38037	0.00	38037.00	Not reported
Idea Cellular	Telecommuni- cations Services	NR	NR	N/A	N/A	N/A	-	-	-	-
IL&FS Transportation Networks	Industrials	AQ	-	32	N/A	Public	0	Not reported	Not reported	Not reported
Indiabulls Financial Services	Financials	NR	NR	N/A	N/A	N/A	_	-	-	-
Indiabulls Power Ltd.	Utilities	QF	NR	N/A	N/A	N/A	-	-	-	-

Company	Sector	2011 response status	2010 response status	Carbon disclosure score	Carbon Performance Band	Non Public	Total Emissions	Scope 1	Scope 2	Scope 3
Indiabulls Real	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Estate Ltd Indian Bank	Financials	NR	NR	N/A	N/A	N/A	_		_	
Indian Hotels Co.	Consumer Discretionary	AQ	AQ	56	D	Public	344290	93352.00	250938.00	Not reported
Indian Oil Corporation	Energy	DP	DP	N/A	N/A	Not public	-	-	-	-
Indian Overseas Bank	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Indusind Bank	Financials	AQ	AQ	50	E	Not public	11002.98	1615.47	9387.51	1480
Infosys Technologies Ltd	Information Technology	AQ	AQ	66	D	Not public	196308	16439.00	179869.00	99476
Infrastructure Development Finance Company	Banks	AQ	AQ	57	D	Not public	4039	00137	03902	3042
IRB Infrastructure Developers	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
ITC Limited	Industrials	AQ	AQ	64	D	Public	1463039	1307766	155273.00	583250
Jain Irrigation Systems	Industrials	QF	NR	N/A	N/A	N/A	-	-	-	-
Jaiprakash Associates	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Jaiprakash Power Ventures	Utilities	NR	-	N/A	N/A	N/A	-	-	-	-
Jaypee Infratech Ltd.	Financials	NR	-	N/A	N/A	N/A	-	-	-	-
Jet Airways (India) Ltd.	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Jindal Saw Ltd.	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
Jindal Steel & Power	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
JSW Energy	Energy	NR	-	N/A	N/A	N/A	-		-	-
JSW Steel	Materials	AQ	AQ	44		Public	15.04	13.56	1.48	0
Kansai Nerolac Paints	Materials	CR	-	N/A	N/A	N/A	-	-	-	-
Kotak Mahindra Bank	Financials	DP	NR	N/A	N/A	Not public		-	-	-
KSK Energy Ventures Limited	Utilities	AQ	NR	43	N/A	Not public	1028862	1028862.00	Not reported	Not reported
Lanco Infratech	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Larsen & Toubro	Industrials	AQ	AQ	69	C	Public	394320	288045.00	106275.00	17466
LIC Housing Finance	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Lupin	Healthcare	NR	NR	N/A	N/A	N/A	_	-	-	-
Mahindra & Mahindra	Industrials	AQ	AQ	53	D	Not public	227031	39192	187839	101356.48
Mahindra & Mahindra Financial Services	Financials	NR	-	N/A	N/A	N/A	-	-	-	-

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Company	Sector	2011 response status	2010 response status	Carbon disclosure score	Carbon Performance Band	Non Public	Total Emissions	Scope 1	Scope 2	Scope 3
Manappuram General Finance & Leasing	Financials	NR	-	N/A	N/A	N/A	-	-	-	
Mangalore Refinery and Petrochemicals	Energy	NR	NR	N/A	N/A	N/A	-	-	-	-
Marico	Consumer Staples	NR	DP	N/A	N/A	N/A	-	-	-	-
Maruti Suzuki India	Consumer Discretionary	DP	NR	N/A	N/A	Not public	-	-	-	-
MMTC	Industrials	NR	_	N/A	N/A	N/A	-	-	-	
Motherson Sumi Systems	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
MphasiS	Information Technology	NR	NR	N/A	N/A	N/A	-	-	-	-
Mundra Port & Special Economic Zone	Industrials	DP	NR	N/A	N/A	Not public	-	-	-	-
National Aluminium Co.	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
National Fertilizers	Materials	NR	-	N/A	N/A	N/A	-	-	-	_
National Hydroelectric Power Corporation Ltd (NHPC)	Utilities	NR	NR	N/A	N/A	N/A	-	-	-	-
National Thermal Power (NTPC)	Utilities	NR	NR	N/A	N/A	N/A	-	-	-	
Nestle India	Consumer Staples	AQ (SA)	-	N/A	N/A	N/A	-	-	=	-
Neyveli Lignite Corporation	Utilities	NR	NR	N/A	N/A	N/A	-	-	=	-
NMDC	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
Oberoi Realty	Financials	NR	-	N/A	N/A	N/A	-	-	-	
Oil & Natural Gas	Energy	AQ	AQ	34	N/A	Public	9050000	8360000	690000	Not reported
Oil India Ltd.	Energy	NR	NR	N/A	N/A	N/A	-	-	-	-
Opto Circuits (I) Ltd.	Healthcare	NR	NR	N/A	N/A	N/A	-	-	_	
Oracle Financial Services Software	Financials	NR	NR	N/A	N/A	N/A	-	-	-	
Oriental Bank of Commerce	Financials	NR	NR	N/A	N/A	N/A	-	-	=	-
Pantaloon Retail	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Mahindra & Mahindra	Consumer Discretionary	AQ	AQ	N/A	N/A	Public	218545	40055.00	178490.00	
Patni Computer Systems	Information Technology	AQ	NR	15	N/A	N/A	0	Not reported	Not reported	Not reported
Petronet LNG	Energy	NR	NR	N/A	N/A	N/A	-	-	-	-
Pidilite Industries	Materials	QF	NR	N/A	N/A	N/A	-	-	-	-
Pipavav Shipyard	Financials	NR	-	N/A	N/A	N/A	-	-	_	
Piramal Healthcare	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-

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Company	Sector	2011 response status	2010 response status	Carbon disclosure score	Carbon Performance Band	Non Public	Total Emissions	Scope 1	Scope 2	Scope 3
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Power Finance Corporation	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Power Grid Corpn. of India	Utilities	NR	DP	N/A	N/A	N/A	-	-	-	_
Prestige Estate	Financials	NR	_	N/A	N/A	Public	-	-	_	
Procter & Gamble Company	Consumer Staples	AQ	AQ	49	N/A	N/A	5904000	2795000	3109000	Not reported
Punjab National Bank	Financials	NR	NR	N/A	N/A	N/A	-	-	_	-
Ranbaxy Laboratories	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-
Rashtriya Chemicals & Fertilizers	Materials	NR	NR	N/A	N/A	Not public	-	-	-	-
Reliance Capital Ltd	Financials	AQ	AQ	34	N/A	N/A	0	Not reported	Not reported	Not reported
Reliance Communications	Telecommuni- cations Services	NR	NR	N/A	N/A	N/A	-	-	-	-
Reliance Industries	Industrials	CR	NR	N/A	N/A	N/A	-	-	-	-
Reliance Infrastructure	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Reliance Power	Utilities	NR	NR	N/A	N/A	N/A	-	-	-	-
Religare Enterprises	Financials	NR	-	N/A	N/A	N/A	-	-	-	-
Rural Electrifi- cation Corpn.	Utilities	NR	NR	N/A	N/A	Not public	-	-	-	-
Satyam Computer Services	Information Technology	AQ	NR	51	D	Public	52184.84	4110.34	48074.50	26196.07
Sesa Goa	Materials	AQ	AQ	75	D	N/A	780625	713669.00	66956.00	76870
Shipping Corporation of India	Industrials	NR	NR	N/A	N/A	Public	-	-	-	-
Shree Cement	Industrials	AQ	AQ	59	С	N/A	6969050	6846105.00	122945.00	62432
Shriram Transport Finance Co.	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Siemens India	Industrials	AQ (SA)	NR	N/A	N/A	N/A	-	-	_	-
Sintex Industries	Industrials	NR	-	N/A	N/A	N/A	-	-	-	-
SJVN	Utilities	NR	-	N/A	N/A	N/A	-	-	-	-
SJVN Ltd	Utilities	NR	-	N/A	N/A	N/A	-	-	-	-
SKS Microfinance Ltd.	Financials	NR	-	N/A	N/A	N/A	-	-	-	-
State Bank of India	Financials	AQ	AQ	24	N/A	Public	0	Not reported	Not reported	Not reported
Steel Authority of India	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
Sterlite Industries	Materials	AQ	AQ	62	С	Public	599096	320511.00	278585.00	Not reported
Sun Pharmaceutical Industries	Healthcare	NR	NR	N/A	N/A	N/A	-	-	-	-

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Company	Sector	2011 response status	2010 response status	Carbon disclosure score	Carbon Performance Band	Non Public	Total Emissions	Scope 1	Scope 2	Scope 3
Sun TV Network	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-
Suzlon Energy	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Syndicate Bank	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Tata Chemicals	Materials	AQ	AQ	77	С	Public	2751555.31	2712424.42	39130.89	86419.38
Tata Communi- cations	Telecommuni- cations Services	DP	NR	N/A	N/A	Not public	-	-	-	-
Tata Consultancy Services	Information Technology	AQ	AQ	86	С	Public	302684	33064.00	269620.00	99806.75
Tata Global Beverages	Consumer Staples	AQ	-	76	С	Public	68149	23621.00	44528.00	280
Tata Motors	Industrials	AQ	AQ	44	N/A	Public	699916.48	161316.75	538599.73	Not reported
Tata Power Co	Utilities	AQ	AQ	71	С	Public	11137831	11137831.00	Not reported	3201
Tata Steel	Materials	DP	AQ	N/A	N/A	Not public	_	_		-
Tech Mahindra	Information Technology	AQ	AQ	52	Е	Not public	64650	13767.00	50883.00	22172
Thermax	Industrials	DP	NR	N/A	N/A	Not public	-	-	-	-
Titan Industries	Consumer Discretionary	AQ	AQ	55	Е	Not public	21933	6310.00	15623.00	26631
Torrent Pharmaceuticals	Healthcare	NR	-	N/A	N/A	N/A	-	-	-	-
Torrent Power	Utilities	CR	NR	N/A	N/A	N/A	-	-	-	-
UCO Bank	Financials	NR	-	N/A	N/A	N/A	-	-	-	-
Ultratech Cement	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
Union Bank of India	Financials	NR	NR	N/A	N/A	N/A	-	-	-	-
Unitech	Industrials	NR	NR	N/A	N/A	N/A	-	-	-	-
United Breweries	Consumer Staples	QF	NR	N/A	N/A	N/A	-	-	-	-
United Phosphorus	Materials	NR	NR	N/A	N/A	N/A	-	-	-	-
United Spirits	Consumer Staples	NR	NR	N/A	N/A	N/A	-	-	-	-
Videocon Industries		NR	NR	N/A	N/A	N/A	-	-	-	-
Voltas	Consumer Discretionary	QF	NR	N/A	N/A	N/A	-	-	-	-
Wipro	Information Technology	AQ	AQ	80	С	Public	348306	63785.00	284521.00	176101
YES BANK Limited	Financials	AQ	AQ	78	С	Public	12871.69	0.00	12871.69	13987.5
Zee Entertainment	Consumer Discretionary	NR	NR	N/A	N/A	N/A	-	-	-	-

## **Key to Appendix III**

Key t	o Appendix III	Scope 3 Source Key:						
Key:		DSP	End of life treatment of sold					
AQ	Answered questionnaire	DOF	products					
AQ(L)	Answered questionnaire late <sup>4</sup>	EC	Employee commuting					
AQ(SA)	Company is either a subsidiary or has merged during the reporting	Eq	Capital goods					
	process. See company in brackets for further information	Fr	Franchises					
	on company's status	Fu	Fuel energy – related activities not included in Scope 2					
DP	Declined to participate		·					
IN	Provided information	In	Investment					
NP	Answered questionnaire but	Ld	Leased assets (downstream)					
INF	response not made publicly available	Lu	Leased assets (upstream)					
NR	No response	Oth	Other					
INII	·	PGS	Purchased goods and services					
_	Hyphen/dash = Company has not provided information or the information has not been made	PSP	Processing sold products					
	publicly available	SE	Supplier emissions					
*	Company provided a figure for scope 2 contract arrangements	TI	Transportation and distribution (goods and services)					
		Tr	Business travel					
		TSP	Transportation and distribution of sold products inc. warehousing and retail					
		USP	Use of sold products					

## **Footnotes for Appendix I**

1. Total of Scope 1 and Scope 2 reported emissions.







Wa



Waste generated in operations

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