

Executive Summary

It is often said that a business can only manage what it measures. Since 2000, the Carbon Disclosure Project (CDP) has, on behalf of institutional investors, challenged the world's largest companies to measure and report their carbon emissions, integrating the long-term value and cost of climate change into their assessment of the financial health and future prospects of their business.

Corporations' ability and willingness to monitor and report these activities and issues reflects the inexorable rise of climate change from debate at the fringes of society to the boardroom agenda. The effects of climate change may include physical impacts on assets, changing market dynamics for goods and services, escalating regulation and greater scrutiny from an increasingly sophisticated range of stakeholders. Investors want to know how companies are future-proofing themselves against these, whilst maximizing the opportunities they present.

How far have we travelled? This year CDP, backed by 385 leading institutional investors representing more than US\$57 trillion of funds under management, has sent questionnaires to more than 3,000 of the world's largest corporations requesting information on greenhouse gas emissions, the potential risks and opportunities climate change presents and strategies for managing those risks and opportunities. The corporations' responses and reports assessing the results of these will be published in more than 20 countries around the world in 2008 and are freely available at www.cdproject.net.

This report, prepared by CDP's global adviser, PricewaterhouseCoopers LLP (PwC), analyzes responses from the 500 largest corporations in the FTSE Global Equity Index Series, the "Global 500". As of March 2008, the market capitalization of these companies was US\$22 trillion.

The logic for CDP is simple; addressing the climate change challenge depends on a dialogue, between shareholders and corporations, supported by high quality information. Companies need to articulate their position in a coherent way to an increasingly sophisticated set of stakeholders.



CDP6 Highlights

Overall response rate maintained, despite changing make-up of the Global 500.

- **The overall response rate for CDP6 is 77%** – consistent with the record level achieved in CDP5, despite deteriorating economic conditions in many countries in the world and substantial changes in the composition of the Global 500 – 58 out of the 383 companies who completed the questionnaire were responding to CDP for the first time.
- **European and North American companies set the pace** – with 83% and 82% response rates respectively, but only 50% of Asian Global 500 companies responded.
- **Economic pressures drive shifts in the Global 500** – high energy and commodity prices have boosted oil and gas, raw materials and mining sector representation, while the credit crunch has helped to trim the financial services sector, although this remains the dominant sector by number. Companies in carbon intensive sectors now account for 44% of the Global 500 population, up from 40% in CDP5.

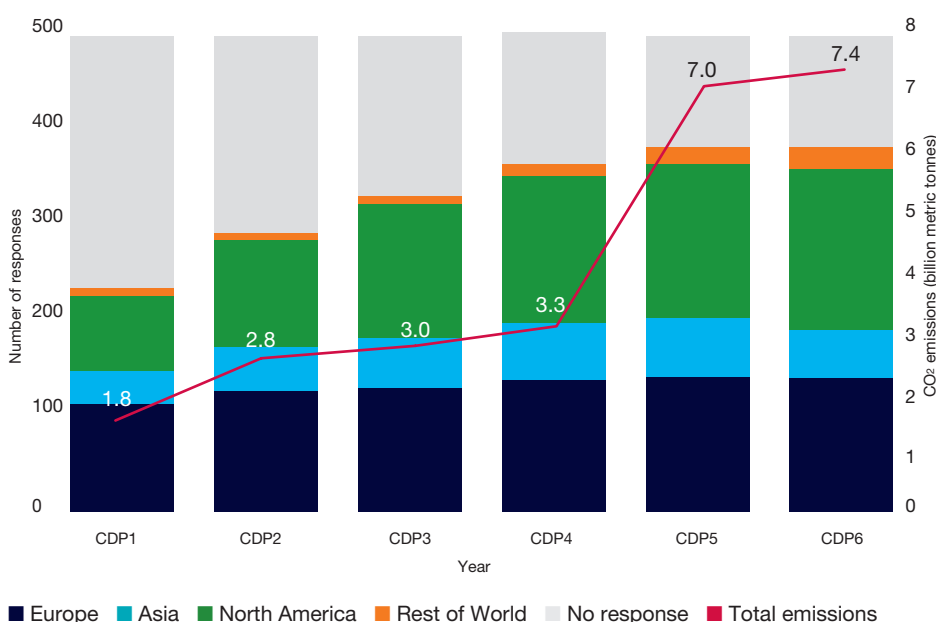
- **Higher response rate amongst companies with a longer history in the Global 500** – 417 out of this year’s Global 500 were also there last year. The response rate for these companies was 82%, up marginally from CDP5, suggesting a trend of increasing carbon disclosure amongst the world’s largest companies and demonstrating the cumulative impact of CDP’s work each year.
- **Global 500 reporting companies account for around 5.8% of global total emissions – on the basis of direct, or Scope 1 emissions which were 2,690 million metric tons of CO₂-equivalent (MtCO₂-e).** Total reported emissions under Scope 2 and Scope 3 were 494 MtCO₂-e and 4,175 MtCO₂-e respectively^a.

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The Carbon Disclosure Leadership Index (CDLI)

- **CDLI demonstrates range and depth of carbon disclosure** – the CDLI includes the companies with the highest scores for disclosure in the carbon-intensive sectors and in the non-carbon-intensive sectors. The range of scores for Leaders in the non-carbon-intensive sectors is narrower than for Leaders in the carbon-intensive

Fig. 1: CDP1-CDP6 respondents by geography



^a IPCC estimate total anthropogenic emissions at 49 Gigatonnes CO₂-Equivalent in 2004. Scope 1, 2 and 3 emissions are terms used under the GHG Protocol. For a full description see: GHG Protocol: A Corporate Accounting and Reporting Standard, available at www.ghgprotocol.org/files/ghg-protocol-revised.pdf

Source: Carbon Disclosure Project

Europe demonstrates another strong performance – with an overall response rate of 83%.

The North American response rate is up from 76% to 82%.

Brazil had an 86% response rate...ahead of many of its Western counterparts.

sectors – 90-98, against 66-82 – suggesting that standards are higher on a more consistent basis in the non-carbon-intensive sectors. However, throughout the Global 500, the quality of disclosure in non-carbon-intensive sectors was much more variable^b.

- **Experience shows through, but the CDLI is by no means a static group** – all of this year’s Leaders also responded to the CDP5 questionnaire and, with two exceptions, were also members of the Global 500 last year. However, more than half (35 out of 67) are new entrants to the CDLI compared to last year, demonstrating that competition to lead in the race to a low carbon world is intensifying.

Significant variations in response rates and the quality of disclosure

- **Very mixed response rates from the ‘BRIC’ countries (Brazil, Russia, India and China) within Global 500** – no Russian companies completed CDP6, while only 14% of Indian companies and 15% of Chinese companies responded. Although the high proportion of new entrants from these countries will have contributed to these low response rates, CDP plans to do more to engage companies in these important economies. Brazil, in contrast, had an 86% response rate and an average CDLI score among responding companies of 61 points, ahead of many of its Western counterparts.
- **The North American response rate is up from 76% to 82%** – reflecting increasing engagement on the climate change issue. However, the quality of reporting and disclosure was somewhat mixed. Despite 27 companies in

the CDLI, the average score for North American respondents was 57 out of 100 points, only marginally ahead of the average for Asia, and some way behind the overall average of 62 points.

- **Europe demonstrates another strong performance** – with an overall response rate of 83% despite the absence of any Russian responses. Europe also recorded the highest average score – 69 points. This result reflects the relative maturity of the climate change issue in the region – pan-European regulation has been in place to regulate emissions since 2005 – and there is increasing consumer interest in climate change.
- **Carbon-intensive vs. non-carbon-intensive sectors^b** – although the overall response rates for the two sector groupings was very similar, the carbon-intensive sectors performed slightly better in most aspects of disclosure. Non-carbon-intensive sectors were slightly better at identifying risks and opportunities and at reporting Scope 3 emissions; equally good at reporting energy usage and at forecasting emissions; but worse or significantly worse at all other aspects of disclosure.
- **Utilities perform well, Oil & Gas sector outpaced** – within the carbon-intensive group, three sectors – Utilities, Construction and Mining and Metals – scored equally well overall, with Utilities and Chemicals & Pharmaceuticals leading the field in the CDLI. Oil & Gas, having been an early adopter of carbon reporting, is now falling behind other sectors, achieving only sixth place on the basis of CDLI scores within the carbon-intensive peer group, ahead of only Transport & Logistics.

The highest scoring companies in each category

Carbon Intensive Sectors	Non Carbon Intensive Sectors
BASF – Chemicals & Pharmaceuticals	Barclays – Financial Services
Iberdrola – Utilities	Merrill Lynch & Co – Financial Services
Bayer – Chemicals & Pharmaceuticals	Munich Re – Financial Services
Exelon – Utilities	National Australia Bank – Financial Services
Nissan Motor – Manufacturing	EMC – Technology, Media & Telecoms
Scottish & Southern – Utilities	

^b It is important to note that the different reporting requirements for the two sector categories make it difficult to draw direct comparisons between their scores.

- **More consistent performance amongst the non-carbon-intensive sectors** – sector average scores ranged from 69-71 points in the non carbon intensive grouping. However, the CDLI representation was dominated by Financial Services, which continued to demonstrate a very strong understanding of carbon risks and opportunities. Response rates were up for most sectors in this group.

Drivers for action

- **The impact of uncertainty** – although there is now a broad consensus on climate science, the implications for corporate value are less certain. For some CDP6 respondents, this translates into a “wait and see” strategy. Others clearly feel that late starters risk missing out on opportunities.
- **Regulation remains a key issue** – with more countries and regions now contemplating emissions trading schemes for carbon-intensive sectors, regulation featured frequently as a key risk factor. Companies are looking for greater visibility on climate policy and on carbon prices, and many

also mentioned the lack of harmonization on regulatory issues, with European installations currently disadvantaged by the cost impact of EU ETS.

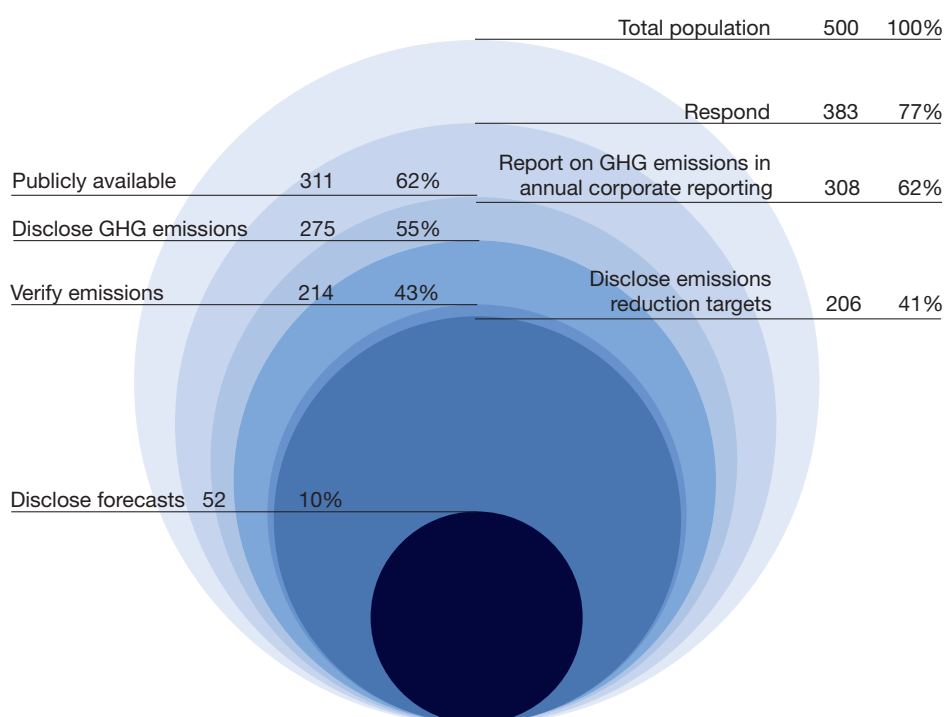
- **Increasing consumer awareness** – consumer attitudes are featuring increasingly as a driver of risks and opportunities in the Business-to-Consumer (B2C) sectors, especially in the Retail and Consumer and Utilities sectors. However, carbon disclosure to customers is still very much in its infancy. Some corporations are exploring carbon labeling, but there is little clarity on what information is relevant or whether this actually impacts upon consumer choice.
- **More focus on the supply chain** – retailers such as **Wal-Mart, Tesco** and **Carrefour** noted that they were devoting significant resources to investigating supply chain emissions, possibly motivated as much by cost-savings and reputational benefits as by their wider environmental impact. This mirrors experience in the CDP Supply Chain Project, where a number of leading companies are working together to develop a

standardized and cost-effective way to engage their supply chains in carbon reporting and to factor climate change into best practice procurement processes.

Reporting and management of emissions

- **Focus on Scope 1 and 2** – there is reasonable comfort around the reporting of Scope 1 and Scope 2 emissions under the framework established by the GHG Protocol, but less than half of companies that disclosed Scope 1 and Scope 2 emissions disclosed any emissions data for Scope 3. Even among the CDLI, 33% of carbon-intensive Leaders and 12% of non-intensive Leaders did not provide any Scope 3 data.
- **Need for more guidance on Scope 3** – those that did provide Scope 3 data often limited this to easy-to-calculate impacts such as business travel, rather than addressing more complex issues such as supply chain or product usage. Although a number of leading companies are starting to explore supply chain emissions, others appear reluctant to claim ownership of emissions which they

Fig. 2: Proportion of Global 500 at each disclosure level



72%

of questionnaire respondents are now reporting Scope 1 and Scope 2 emissions, compared to 58% last year.

74%

of respondents reported that they have emissions reduction targets in place.

Clearly there will be winners and losers in the transition to a low carbon economy and investors should be concerned about companies who are not able to provide the information they require.

cannot directly control. Companies need more guidance on how to define organizational boundaries and carbon accountability, and to better understand and use their carbon influence.

- **Very few companies were willing to provide emission forecasts** – although many companies may undertake forecasts for regulatory and other purposes, these are generally seen as too commercially sensitive to make public.
- **Assuring credibility** – the overall level of carbon reporting continues to improve, with 72% of questionnaire respondents now reporting Scope 1 and Scope 2 emissions, compared to 58% last year. The majority of companies that report emissions want external assurance of their emissions data: 59% of companies stated that they had, or planned to have, their numbers externally verified.
- **Emissions reduction targets** – 74% of respondents reported that they have emissions reduction targets in place (though only 56% disclosed them), suggesting that companies are increasingly taking climate change mitigation seriously, irrespective of direct regulation on carbon.

Governance and communication

- **Governance still not at the forefront** – climate change is still not a regular agenda item for most Boards. It is commonly discussed twice or four times a year at formal meetings, rather than being a routine Key Performance Indicator.
- **More regular communication with investors** – most companies now communicate their climate change policies and performance to shareholders and other stakeholders. Most commonly, this is done through disclosure to CDP; but many also dedicate a section of their annual report or corporate social responsibility report to climate change.
- **Need for comparability and benchmarking** – a number of companies said that they also keep stakeholders informed through investor road shows. However, these less formal

methods make it harder for equity analysts to benchmark performance and risks within and between sectors. Given the increasing number of funds and indices focused on climate change and other environmental metrics, there is a clear demand for transparent and comparable reporting.

Conclusion

The depth and quality of the responses from the world's largest companies to the latest CDP questionnaire are a measure of shareholder and corporate engagement on the issue of climate change. They demonstrate the many positive steps that have been taken by Global 500 companies over the past year. Climate change is becoming a bigger issue for the majority of large businesses and companies are keen to share information on their carbon performance and climate risks and opportunities with investors and other stakeholders.

But progress is not uniform, either geographically or by industry sector. Responses exhibited a wide range of completeness and sophistication. Whilst it is evident that many companies are devoting significant, senior-level resource to reporting through CDP, some companies failed to recognize this opportunity to engage with a wide range of stakeholders on climate change. Clearly there will be winners and losers in the transition to a low-carbon economy and investors should be concerned about companies who are not able to provide the information they require.

Over the next twelve months, policy makers and negotiators from around the world will be working hard, trying to agree a new global deal on climate change. It is essential that the voice of business and investors is heard clearly in these negotiations. The corporate sector has a crucial role to play in addressing climate change, through investment and innovation. CDP6 has demonstrated clearly that the Global 500 are increasingly ready for this challenge.