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Carbon Disclosure Project: Credible Platform for Emission Data?

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"Many of the companies we work with tell us the Carbon Disclosure Project Questionnaire was a real trigger in their decision to start working strategically to address climate change."

– Steve Howard, CEO, Climate Group, 2008

"Climate change and the impact that it will have on key industries such as agriculture, tourism, energy, transport and insurance, is as important as interest rate risk and exchange risk. As a major global investor, we support the CDP and value the information that it provides to help us make informed decisions on the subject."

– Henri de Castries, Chairman of the Board and CEO of AXA

"But although the CDP website contains the world's largest repository of corporate GHG emissions data and information on business strategies to address climate-related risks and opportunities, the CDP itself acknowledges that its information 'still falls short of the quality expected of traditional financial data'."

– Toby Proctor, Writer, ClimateChangeCorp.com

Introduction

The Carbon Disclosure Project (CDP) was founding in 2000 at 10 Downing Street in the United Kingdom. Being the residency of the UK Prime Minister, this symbolic birth was meant to demonstrate the new emphasis of cooperation between the public, private and non-profit sectors, as well as the international flavor of the goal of halting humankind's effect on the planet in the new millennium.

Beginning in 2003 the CDP began requesting data on carbon emissions from the 500 largest companies in the world, publishing its first annual report, the CDP1 – Global 500. Currently in its sixth year, the Global 500 report has grown substantially with a

significant percentage of requested firms publishing[1]. The CDP has also expanded beyond the largest global companies, to publish similar data for individual countries and regions. 14 individual countries are reported on, ranging from the United States and Japan to Brazil and China, along with the Asian and Nordic regions more generally[2]. Today, the CDP has grown to be the world's largest repository of corporate emissions data and business strategies addressing climate change[3].

The CDP is registered charity number 1122330 in the United Kingdom, having done so in the past year (2007). It is also represented by the Rockefeller Philanthropy Advisors as the CDP's fiscal agent and sponsor liaison in the United States, providing the CDP with 501(c)3 charitable status. With research it appears that the CDP had only been registered in the United States under the Rockefeller Philanthropy Advisors until this past year's registry in the UK.

Workforce and Board

Workforce

In 2007 The Carbon Disclosure Project team included 12 individuals. Between the publication of the 2007 workforce and the present time, the CDP team has grown to include 24 personnel, including the following:

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1 From 47% in 2003 to 77% in 2008. Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

2 Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

3 Toby Proctor, "ClimateChangeCorp.com," 21 August 2008, ClimateChangeCorp.com, December 2008 <http://www.climatechangecorp.com/content.asp?ContentID=5570>.

> Paul Dickinson (Chief Executive), Paul Simpson (Chief Operating Officer), Roy Wilson (Chief Financial Officer), Alicia Ayars (Project Officer), Marieke Bechmann (Officer, Communications and Corporate Partnerships), Patrick Crawford (Supply Chain Project Manager), Matt Greenbaum (Development Officer), Lois Guthrie (Technical Director), Jenni Hagland (Client Services), Amanda Haworth-Wiklund (Nordic Director), Kirstin Hill (Project Officer), Sue Howells (Head of Global Operations), Tim Keenan (Vice President), Joanna Lee (Director of Communications and Corporate Partnerships), Kate Levick (Head of Government Partnerships), Michiyo Morisawa (Director CDP Japan), Zoe Riddell (Vice President – USA), Tom Rivett-Carnac (Cities and Public Sector Supply Chain Projects), Andrea Smith (Technical Manager), Leah Stern (Project Officer), Pete Stupple (Central Services Officer), Nigel Topping (Development Director), Daniel Turner (Project Manager), Frances Way (Head of Supply Chain)[4]

This significant growth in the number of individuals and positions within the CDP has a number of reasons and consequences. On the positive side, an increase in the size and scope of the project means that more individuals can focus on more areas with greater precision. This would explain the significant increase in staff within a year's time and the reorganization of existing staff into more specific roles. The increased focus of each individual lends credibility to the organization as it means each person has more time to focus on specific issues, rather than spreading time and energy around such a potentially large area.

However, the considerable increase in staff and shuffling to different posts has a negative side as well. By constantly changing roles and hiring on new individuals it may be easier for companies that have published with the CDP previously and who know the strong and weak points of the process to exploit this information to provide erroneous and inconsistent data without the knowledge of the CDP. Staff that have been with the

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[4] Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

project since its inception and that have been working on the same issue have the benefit of past years to call on, making it much more difficult for companies to find weak links in the publishing chain. The effect on credibility of these two issues is mixed, and it is likely that the overall credibility of the organization is enhanced much more with more staff and focuses roles than is lost by constantly changing staffing. In the long run, staff will come and go, the turnover will likely decrease as the CDP becomes more mature, but the increased precision wrought by the greater number of positions at the CDP will remain.

One other important aspect of the staffing is the skills this group of individuals brings to the table. Every member of the CDP staff has years of experience in the areas they work, including many with history in the finance and regulatory fields, and most with side involvement in charitable and/or environmental groups. This mix of individuals gives the CDP credibility because it means it can honestly work with corporate partners in ways that elicit real and valuable information, while also remaining outside the influence of their interests and demands. Finally, if there is some extra credibility to non-governmental organizations gained from the "activists" that make the choice to work in this field, the CDP would benefit from similar logic, employing such individuals who put the needs of the community, nation or world above that of personal gain[5].

[5] Although the author is dubious about this assertion.

Advisory Board/Trustees

After having registered as a charity in the United Kingdom the CDP moved from having an advisory board to being governed by trustees. These trustees are currently only from the private sector, although speaking with an individual at the CDP it became known that the organization has requested other individuals to join the trusteeship.

The information on the advisory board or trustees is rather difficult to obtain to the lay observer. To begin, there is no mention made on the CDP's website about whether an advisory board or trusteeship exists in the first place. This information is only available at the end of the annual reports, with little distinguishing it from other financing information. Only upon calling a CDP employee was the information made clearer about the ultimate governing responsibility. On top of the difficulty in finding the make up of the board, it was impossible to determine any information beyond the names of the individuals of the past boards with the search that was conducted. In 2007, the make up of the advisory board was as follows:

> James Cameron (Chair), Alan Brown, Andrew Dlugolecki, Colin Maltby, Robert Monks, Robert Napier, Eckart Wintzen, Doug Bauer, Martin Whittaker, Caroline Williams[6].

Most importantly, the mere fact that this information is not made explicit to the public pulls down the credibility of the organization. The first thought is to wonder what information is so important about the past board members or current trustees that keeps it from being published. It is possible that the governing members of the CDP felt the

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[6] Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

make up of the board exhibited some conflict of interest issues and it did not want the public to know this. If most of the board represented industry, it is much easier to write off the independent nature of the CDP than if the board includes members from the pubic, private and non-profit sectors, as well as from the many different nationalities supposedly represented by the CDP. Ultimately, if the new trustees do indeed represent sufficiently differing backgrounds there is little lost from the lack of advisory board information to the public, aside from the perception that the CDP may not be as well balanced as hoped.

Funding

The Carbon Disclosure Project is funding from a number of different sources, some private, some public, and some non-profit. As of 2008 the funders include:

- Private: AXA, Merrill Lynch, Pictet Asset Management, PriceWaterhouseCoopers, Standard Charter
- Public: DEFRA (UK), EPA (US), NUTEK (Sweden), VROM (Netherlands)
- Foundations: DOEN Foundation (Netherlands), Esmie Fairbaim Foundation (UK), Nathan Cummings Foundation (US), Oak Foundation (Switzerland)
- NGO: REEEP, WWF (UK, Germany, India)

The most important thing to notice from this list of donors is that it is quite varied. The inclusion of both private and public funds would seem to limit the influence that one sector might have over the standards and practices of the CDP. If the sole source of funds was the private sector it would be easy to imagine that the CDP would be beholden to these private companies, setting standards unnecessarily low and making it easy for companies to cheat. On the opposite end, if the sole funders were public institutions the goals may be subverted under regulatory red tape, neglecting the realities of business.

With the happy intersection of both, the CDP can maintain a semblance of independence from the market while still requiring sufficiently realistic reporting demands such that it doesn't scare off private firms.

The second importance is the mix of national/multi-national institutions. With representatives from many different nationalities it becomes harder for one method of reporting to win over other methods. Each nation has its own way of looking at the issue, with special interests in certain areas, and as such, it would be difficult to discuss benchmarking when some firms are not familiar with or unwilling to work with proprietary methods. However, with the large variety in nationalities represented deciding on a truly international standard for reporting and assessing carbon emissions becomes both necessary and ideal.

Unfortunately, the funding setup of the CDP is not a complete panacea, and a few questions still remain. To begin with, the CDP website and publications give no indication as to what the percentage of funding from each source is. It is perfectly possible to list a large number of public institutions and foundations as donors if they give even a pittance, but if the majority of the money comes from the private sector, it doesn't really answer to whom the CDP actually responds. The same can be said for any iteration of funding, if the majority came from the public sector institutions, or American institutions, etc.

The American arm of the non-profit administration of the CDP does not allow for easy financial research of the organization. As part of the Rockefeller Philanthropy

Trust, there is no independent report for the CDP in the United States.[7] The recent filing of the CDP as a charity in the United Kingdom means that, in the future, their independent financials will be reported, and the money received from each source can potentially be assessed. Going into the future, the organization may become a bit more credible with regard to their funding, although not offering this information directly on their own website still gives pause.

Another important point is that much of the foundations that contribute money to the CDP change year-on-year, as would be expected of such institutions. This can lead to a de-facto loss of power to this sector as new foundations come and go, but public and private institutions remain the same. The foundations would in such a case be the last people to be consulted on how money is spent, especially if it is for longer term projects that last beyond the time line of funding from the non-profit groups. It also leads to questions of sustainability of this leg of the funding pot. If the CDP must continually seek out new donations from various foundations it may at some point find this an inefficient use of resources and fall back on the more long term potential provided by private of public institutions. It is interesting to note that all funding in the first years was from foundations, having only been diversified later.

Finally, the funding source of the research conducted by the CDP is either predominately or completely from private sources. The effect of this is not clear. On the one hand, these reports have the potential to be as much for benchmarking individual investors as they are for companies to benchmark against their competitors. In this case,

[7] As far as the author is aware.

the companies' and CDP's incentives have the potential to be weakly, but still positively aligned for accurate reporting. On the other hand, if specific companies can influence the accuracy of the report in their favor[8], or if companies care little about having data on their competitors in comparison to the costs of accurate reporting, there are strong incentives for companies to influence the direction and accuracy of the reports. Like other areas, it is difficult to say what possibilities exist for influencing the CDP on reporting due to the use of common GHG emission reporting standards, self-reporting and the general nature of the majority of the reported data, which is by definition objective[9].

GHG Protocol

The Carbon Disclosure Project is partially predicated on the idea that publishing carbon emission data allows companies and investors to benchmark companies against each other. The CDP website states: the "CDP provides the private and public sectors with a clear framework within which to report and discuss the development of climate change strategies." [10] In order for this to occur a standard must be set in how companies report their data. The CDP has chosen the GHG Protocol "from the Greenhouse Gas Protocol Initiative, which is itself a joint initiative from the World Resources Institute (WRI), a U.S.-based environmental NGO, and the World Business Council for

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8 The use of Merrill Lynch and PriceWaterhouseCoopers as "strategic partners" while receiving a significant amount of operating money from these companies is an excellent example of this issue. Both have their own carbon emission programs and could benefit from favorable treatment by the CDP reports, compared to other financial institutions involved in the reports.

9 Aside from the verification issue, which is discussed later in this paper.

10 Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

Sustainable Development (WBCSD), a Geneva-based coalition of 200 international."[11] It is "[t]he most widely recognized (sic) and used" standard in the world.[12] As SocialFunds.com writer William Baue puts it so succinctly:

> "One of the strengths of the *GHG Protocol* is the fact that is serves as a model or basis for so many other emissions reporting, reduction, and trading programs. These include the Global Reporting Initiative (GRI), the US Environmental Protection Agency (EPA) Climate Leaders Initiative, the Chicago Climate Exchange (CCX), and the European Union Emissions Trading Scheme (ETS). The International Organization for Standardization (ISO) has also signaled its intent to be compatible with the GHG Protocol."[13]

This common usage of the GHG Protocol offers credibility to the CDP because it means that it is using *the* world standard in emissions reporting, rather than a watered down version companies would rather see. The robust nature of the GHG Protocol gives the signal that the information provided by companies to be published by the CDP has a far higher likelihood of being accurate and provides the information required of an in-depth and meaningful emissions report. It also makes benchmarking against companies easier for institutions and individuals, making it difficult for companies to report emissions data that is wildly off from the industry norm. Finally, using a standard method makes it easier for auditing companies or non-profit verifiers to check the validity of the published data.

It also has the longer-term effect of increasing the incentive for the CDP to

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[11] Pete Foster, "CDP6 Responses," 26 September 2008, The Green IT Review, December 2008 <http://www.thegreenitreview.com/search/label/CDP>.

[12] Toby Proctor, "ClimateChangeCorp.com," 21 August 2008, ClimateChangeCorp.com, December 2008 <http://www.climatechangecorp.com/content.asp?ContentID=5570>.

[13] Baue William, "Carbon Disclosure Project Report and Greenhouse Gas Protocol Release Second Editions," 19 May 2004, SocialFunds.com, December 2008 <http://www.socialfunds.com/news/article.cgi/1426.html>.

provide accurate data. This is because as the standard becomes more widely accepted, and reporting options for companies proliferate, the CDP can only maintain its dominant market position by providing the most accurate data that investors seek. If the CDP didn't help champion this common reporting standard it may not create this situation for itself in the future; but it also might not ever grow in the first place without the credibility a robust reporting standard provides.

Unfortunately, as with a number of aspects of the CDP the reporting standard has a down side. While it would be excellent for all companies to be required to use the GHG Protocol, it is only recommended by the CDP. Their website states: "All companies are encouraged to report their emissions data using the Greenhouse Gas (GHG) Protocol: the most widely used international accounting tool in respect of emissions and one which global governments and industrialists are familiar with."[14] This means that some credibility is lost because some companies don't use the standard. However, the credibility issue is deeper than it first suggests because of the difficulty in determining which companies use which methods from simply looking at company reports. Only by delving into each company response does the reporting information become apparent. But comparing specific companies against each other is also difficult and time consuming[15]. This means that unless one determines which standard all reporting companies are using, all information must be suspect in the CDP reports. The

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[14] Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

[15] It costs $9000 for a spreadsheet version of the data, making such quick comparisons very costly for the individual investor. Toby Proctor, "ClimateChangeCorp.com," 21 August 2008, ClimateChangeCorp.com, December 2008 <http://www.climatechangecorp.com/content.asp?ContentID=5570>.

CDP also makes no mention of this issue with reporting standards, papering over the issue by not discussing it in the first place in the hopes that investor take little notice.

In sum, there are three major ways to see the use of the GHG Protocol. First, the good: by using a common standard the CDP may get more companies to report accurate information and actually begin projects toward reducing their emissions due to the public scrutiny and benchmarking available with this standard. Second, the bad: if companies have a difficult time offering wildly incorrect information they have a greater incentive to interfere with other areas of the CDP, such as special preference in reports. However, as an outsider, it is difficult to say what areas besides reporting of hard data that the companies can influence the information provided by the CDP, and therefore whether this is a significant threat to credibility or not. Third, and most importantly, the bad again: since companies are not required to use the GHG Protocol they may get away with publishing poor data with a less stringent reporting mechanism, in the hope that most won't recognize the difference. Which effect ultimately dominates is difficult to say.

Institutional Investors

The CDP website and publications all make reference to the number of institutional investors signed onto the CDP project. As of this writing 385 investment institutions are represented, controlling an estimated $57 trillion dollars in assets.[16] The idea behind the display of support is to give force to the requests for emissions data from companies. With investment houses involved there is the potential for real losses to asset

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[16] Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

values because they can recommend or shy away from assets based on carbon emissions data. A number of questions then arise from this assumption, the underlying being whether the publication of carbon emissions information affects the valuation of companies and if companies believe this to be the case.

On the first questions, if investors don't care about carbon emissions information or what programs the companies have in place to affect these emissions then the value to the information provided by the CDP is worthless. The whole purpose of the CDP is predicated on the belief that climate change will have an effect on companies, whether it be government intervention in markets, such as carbon taxes, emissions trading regimes or other environmental regulation, or disruptions in the market itself, such as lower consumer demand for products from high emissions companies/high emissions products or increased costs due to climate change issues. It doesn't matter whether the claim is true or not, what matters is that investors believe it to be true because they will then include this information in the valuation of companies.

If investors care little about the emissions of carbon by companies, then there is no cost to the investment houses to sign onto the request for information by the CDP; the request is hallow. It also means that companies have little incentive to report the requested information, and if they do, there is little incentive to give information that is accurate and detailed. Public relations wins out over accuracy in this situation, and only third party activists will push for detailed and accurate information, as is the case in many other industries and with other issues. That isn't to say that some companies won't publish their full carbon emission information, or that that information won't be accurate, but that far fewer will do so, and that it is likely that only the companies that stand to

benefit from publishing that information in some way will be the ones doing so. Companies such as Patagonia or Third Generation, whose consumers have the belief that their environmental impact is important in-and-of-itself. However, the idea that environmental impact should be minimized as an intrinsic necessity, versus the idea that environmental impact actually has an effect on potential company performance are two different things. In this situation credibility doesn't even matter because the CDP would likely never have gotten to the size that it is today; few firms would ever need to publish data.

If the latter situation holds, that investors do believe that carbon emissions have the potential to affect future company performance, then the publication of such information has market value. However, simply having market value doesn't make the information valuable *relative* to other information. If investors assign low probabilities to the potential loss to companies from high carbon emissions then it changes the final expected value of returns very little, changing the underlying asset values insignificantly. In this situation, as the last, accurate data on carbon emissions is of little use to investors, even if they do care in some small capacity, and therefore companies will do little to provide this accurate data, if they do at all. Firms will have a small incentive to give data, but only inaccurate and misleading data, putting the credibility of the CDP in question.

However, we know that the number of reporting companies has risen rather dramatically over the six years the CDP has been asking for this data, standing at 77%[17]

[17] "The overall response rate for CDP6 is 77%" The 77% is for the Global 500. The rate of

of requests as of the sixth year, as has the number of investment houses signed onto the project (385[18]), so there must be some value to this information that induces investment houses to ask for it, and for companies to report it. It is highly unlikely that a large majority of US, UK and Japanese firms have suddenly bought onto the intrinsic need for environmental protection. The more likely case is that investment houses have seen an increased demand from consumers for accurate and detailed information on how the companies they invest in are dealing with issues related to their carbon emissions because this has the potential to negatively (or positively) affect many of these companies in the near future. As Tom Stevenson of the newspaper the Telegraph writes, "If you are not already planning your portfolio on the assumption that climate change is right at the top of the business, political and regulatory agenda, you should be."[19] As Bob Massie of the Coalition for Environmentally Responsible Economies says, "Climate change is going to have such a broad impact that the risk is embedded in virtually every institutional portfolio."[20] In this way, the information on carbon emissions and company programs to work on reducing these emissions becomes very similar to the myriad of other data published by public firms for investors to assess the true health of the company.

Unfortunately, this situation creates a conflict between the investment houses and

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response for the S&P 500 is lower, at 64%, as is the FTSE 500, at 67%. Carbon Disclosure Project, "Carbon Disclosure Project Report 2008 - Global 500," viii. 2008.

[18] Carbon Disclosure Project, "Carbon Disclosure Project Report 2008 - Global 500," viii. 2008.

[19] Tom Stevenson, "Global Warming Finally the Hot Topic for Business," 31 October 2006, Telegraph.com, December 2008 <http://www.telegraph.co.uk/finance/2949901/Investment-column-Global-warming-finally-the-hot-topic-for-big-business.html>.

[20] David Lazarus, "Bush Sticks His Head in Sand," 9 July 2002, SFGate.com, December 2008 <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2002/06/09/BU175023.DTL>.

reporting companies because the companies will have an incentive to cheat or paint a rosier picture than reality in the short run[21]. There is a cost borne by the investment houses to demand this information because it causes conflict. Rather than being a neutral third party assessing companies' information, as it currently is with standard financial data, the investment houses must actively fight companies for carbon emission data that is factually correct and of sufficiently depth. More so, there may be a potential conflict between investment houses and their customers. If the cost to obtain accurate information from companies becomes greater than the cost from poor investment choices related to companies hurt by carbon emission issues then the investment houses will have an incentive to play along with the companies' misleading or weak data publication. In the end, the brokerage firms make money by investing in these companies and it is in their interest that the companies they invest in do well. Whether these institutions choose the path of detailed, accurate information, with a more adversarial relationship, or the path of complicity with poor information depends on the situation each firm faces.

One question that comes up in this analysis is whether the adversarial relationship would actually exist. If carbon emissions do have an effect on business, then wouldn't businesses have an incentive to change, and wouldn't publishing accurate information be good for business because it allows investors to see how the business is positioning itself

[21] The argument that in the long run false information reported by companies will be revealed by time, leading to the market accurately valuing the companies that report falsely has already been waged in regard to financial data and the regulation of public companies. The reality that most investors will lose their shirts, with companies closing their doors before the long run can ever come negates many of these laissez fair arguments. As a society we have already deemed it in our best interest to regulate industry in this way, and the regulation of carbon emissions seems to be much the same.

better for the future? This is true, except the issue is not about guaranteed effects on business, but rather *potential* (perceived) effects on business. Investors may have a much different understanding of how carbon emissions will affect the future business than companies, they may not have as good an idea of the true costs for the company to pursue certain policies, or companies may find it less costly to keep on the current course.

This is why the credibility issue with for the CDP is difficult to assess in this case. On the one hand, companies that would rather keep with the status quo have an incentive to misreport carbon emissions to the CDP. However, if a change in business practices towards reducing carbon emissions can indeed improve profitability then publishing accurate information can be useful and is why some companies may have an incentive to report it in the first place – to align the interests of investors and the company. As described in the CDP6 Report, "[f]or some CDP6 respondents, this translates into a 'wait and see' strategy. Others clearly feel that late starters risk missing out on opportunities."[22] The first group in this statement has an ambiguous incentive on accurate reporting because they are not yet sure whether their carbon emissions data will affect future business or that it is worth doing anything about them. However, the second group clearly feels they will benefit and therefore has an incentive to accurately publish data and how they are improving over the long-term.

Another benefit the investors add to the credibility of the CDP is their multi-national make up. By having institutional investors from all over the world signed onto the CDP it helps to set the multi-national tone that the CDP is attempting to keep,

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[22] Carbon Disclosure Project, "Carbon Disclosure Project Report 2008 - Global 500," x. 2008.

meaning it is harder for one country's standards or requirements to win out over a more inclusive and worldwide standard. The use of the GHG Protocol is a good example of this case.

Requesting Data

The CDP collects data from companies annually on a voluntary basis under its annual "Information Request". As stated in the 6th annual report:

> "The process of capturing, analyzing and disclosing data on carbon emissions should become continuous and embedded. Key actions can be undertaken to move this process along a path towards the point where disclosure is robust, informative and transparent. Within this report these key actions have been defined as follows:
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> 1. Respond to the CDP;
> 2. Report on wider climate change issues in an annual company report;
> 3. Disclose actual levels of emissions;
> 4. Independently verify the emissions data;
> 5. Disclose targets for the reduction of carbon emissions; and
> 6. Disclose emissions forecasts.
>
> The CDP questionnaire requests that companies do all of the above except for actions 2 and 4. Companies are also asked to disclose whether they have taken actions 2 and 4, and CDP support such actions."[23]

First, the idea that the process should assist in the development of programs for dealing with carbon emissions is a good, if not ideal one. However, it does little to give real credibility to the organization beyond a perception that the CDP has a noble goal. The more important aspect of the data request has to do with how the data is demanded and

[23] Carbon Disclosure Project, "Carbon Disclosure Project Report 2008 - Global 500," 2008.

how in depth and realistic it is. In this vein the CDP is mixed. As already discussed, the use of a common standard for reporting emissions, the GHG Protocol, gives the CDP a good deal of credibility in the data it is providing. However, as explained in the above citation, as well as the earlier in the paper, the use of this protocol is not required, thereby throwing doubt on the data provided by the companies that do not use it. The lack of more obviously specifying the companies that do and do not use the GHG Protocol also gives doubt to the validity of all of the data, as it is difficult for one to figure out which data is reported in the preferred method and which uses a more lax approach to reporting in the CDP's annual reports.

In general, the request of data has begun to hold real weight in the corporate world as more firms publish, and more investors begin to see emissions as a potential business threat. This puts firms that do not respond to data requests into an interesting light, because although investors may not have specific figures for carbon emissions, the lack of this data can be as telling as if it were available. In some cases, companies that in reality wouldn't be hurt as much from publishing may suffer from the perception that they have something to hide. This benefits the credibility of the CDP as a reporting institution, which provides the most comprehensive database, although not necessarily as an institution providing accurate information.

Having a threshold number of firms also offers the potential for required accuracy in reporting. With fewer firms in the market, it is easy to work on false reporting numbers. However, as more firms provide data, and some of them accurate data, it is impossible for similar firms to publish wildly inaccurate information without incurring a suspicious eye. The more firms reporting and the longer they do so, the higher the

likelihood that there are firms alike enough and who will make the commitment to (relatively) accurately report to result in sufficiently accurate data indefinitely[24].

Verification

Another major issue with the data request process is the lack of verification, either by the CDP or by other third party verifiers in the case of the majority of reporting companies. The lack of verification by the CDP has benefits and costs, so it does not entirely ruin the credibility of the organization. One benefit is that there is one less area for negative influence by companies for favorable reporting of their data. If the CDP was in the position of assessing how accurate their published data was, it would no longer be a neutral forum for publishing information and instead have a bias in favor of accurate data in the GHG Protocol format. It would also be undertaking an expensive and time consuming part of the emissions publication industry, thereby taking time and energy away from lobbying companies to report information in the first place, whether it is very accurate or not. Finally, if companies were required to have their information verified by the CDP (or any organization for that matter) it might keep many from reporting anything, undermining the CDP's goal of having all companies reporting something, whether accurate or not, or in depth or not.

The obvious cost comes to the credibility of the data provided by the companies to the CDP. However, at the end of the day, individuals can determine which companies use which methods, and which have reliable third party verifiers (on some level) and

[24] Those that decide to break with accurate reporting will be penalized due to obvious differences to past data.

which don't. It is up to them to properly value the assets based on this information and the CDP relies on this fact to negate potential loses in credibility from not verifying the data itself and not requiring companies to report in the GHG Protocol format. The CDP states their own belief that investors do have an effect on verification:

> "Responding Companies, effectively reporting to shareholders or their customers through CDP, recognize (sic) the importance of the production of accurate information. Although CDP does not currently require it, an increasing number of responses are independently audited. Companies are encouraged to follow the GHG protocol (www.ghgprotocol.org), a globally respected greenhouse gas accounting standard, to measure emissions."[25]

Whether the CDP's view meshes with reality is difficult to say.

One problem with this assessment is the underlying assumption that individuals can effectively utilize the information provided by the CDP. The website is rather user friendly for individual company responses, but aggregating this information is costly. The CDP currently charges $9000 for the company reports in a spreadsheet format. As previously stated, the annual reports tend to neglect important information, such as which companies are using the common GHG Protocol and which verify their information. If investors can only get value from the information held by the CDP through third parties, like investment firms, the potential for cheating by companies increases significantly, as already discussed. The bottom line is that this information represents a potentially large new market for investment houses to target, and it is no wonder that these firms have signed on to the CDP with such speed.

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[25] Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>..

Global Partners

The existence of the global partners is a huge issue for the CDP to address in the publication of accurate data. The CDP currently has "partner organizations (sic) in ten countries and operates through four CDP offices, based in New York, Paris, Stockholm and Tokyo, each of whom also work with partner organizations (sic)."[26] These organizations assist the CDP in its regional data collection and report writing. The benefit of having these partner organizations is the local knowledge they bring. By having native speakers and people familiar with the local culture, it is likely easier for the CDP to collect accurate data. It also facilitates the goal of full participation of requested companies by creating a familiar and friendly, rather than foreign and quarrelsome relationship. However, the Global Partners also create more areas for inaccurate reporting and potential weak points in the reporting chain for companies to exploit.

Reporting

Website

The bulk of the information provided by companies to the CDP is available on the website. Their database is very user-friendly, and provides the unadulterated responses from the companies for all years that they have responded. The reason why this information is able to be unfiltered is that companies log on to the CDP websites and respond to the questionnaires themselves. Staff of the CDP need not touch this information between the company and the end user. Companies also have a strong

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[26] Carbon Disclosure Project, Carbon Disclosure Project, December 2008, <http://www.cdproject.net/index.asp>.

incentive to make sure the information they publish is in fact the information used and disseminated by the CDP, so there is little worry about the data users can find on the website. On this aspect, the CDP scores rather well on its credibility.

However, there is one small problem with the information provided on the website. Unfortunately for individual investors, the information is not easily compiled. For a spreadsheet version of the data provided by companies, investors need to fork over $9000. While it is theoretically possible to pull all of the information out of the individual company reports, it would be rather time consuming to do so. This means using data to compare more than 2 or 3 companies is difficult and the information must be gathered from another source, such as an investment firm. As already stated, this may be a large reason investment firms have been so keen on becoming part of the CDP.

Reports

The CDP currently publishes three major reports on companies' carbon emissions and programs, along with numerous other country specific reports, all of which are available on their website. The Global 500 focuses on the 500 largest firms in the world, the S&P 500, the 500 largest in the United States, and the FTSE 350, the 350 largest in the UK. The purpose behind publishing data on these companies is to work most efficiently. The "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)."[27] Rather than attempting to get all companies

[27] Carbon Disclosure Project, "Carbon Disclosure Project Report 2008 - Global 500," viii. 2008.

to reply to the CDP, a daunting and expensive task, the CDP is instead attempting to create precedent by getting the largest and most important carbon emitters to join.

The assumption behind this strategy is that with a majority of the large players participating, not only will other large companies feel compelled to publish their own data, but other, smaller firms will need to as well. As they mention in the Global 500 and FTSE 350 reports, respectively: "…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,"[28] and "…analyses responses from the 350 largest corporations in the UK (FTSE 350, an amalgamation of the FTSE 100 and FTSE 250), covering all key sectors and regions of the UK economy. As of March 2008, the market capitalization (sic) of these companies was £1.5 trillion." With such a large amount of money behind these reporting companies it becomes difficult not to report.

One issue with this focus on large companies is the ability of these companies to measure and report their data. The size of the companies reporting seems to correlate positively with the willingness to publish data. This makes sense because of the cost to publish such data. The question then arises whether this allows large companies to push certain reporting standards over others: what requirements make it into the GHG Protocol in the first place, or what implicit reporting practices are used within the CDP, as already discussed. On this front it is difficult to truly assess the effect on credibility due to the convoluted and complicated processes involved.

Returning to the reporting done by the CDP, a number of important things bear

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[28] Carbon Disclosure Project, "Carbon Disclosure Project Report 2008 - Global 500," vii. 2008.

mentioning. The first important aspect of the reports published by the CDP help to alleviate some of the issues with company assessment by individual investors. The reports offer a detailed and well-parsed industry and country analysis of the reporting companies. While comparing between a few specific firms may be somewhat difficult, benchmarking against the industry within or across countries is easy with these reports. This can highlight obvious incongruities with data reported to the CDP, as well as compel firms to implement similar strategic plans as their direct competitors.

On the surface, the value from these reports appears to offer protection against credibility issues from poor data and usability by individual investors. But with a bit of digging, it again becomes obvious that the assumptions necessary to hold up this argument need not hold. Specifically, if firms fail to report using the GHG Protocol the report doesn't capture this difference, nor does it make any effort to explain this potential shortcoming. Also, the reports fail to distinguish companies that verify their data from those that do, resulting in skewed industry and country reports if sufficient numbers of companies are reporting inaccurate data. The credibility of the reports is then left open to question if the data the CDP uses to push the idea of benchmarking is itself anomalous. This isn't to say that the data is necessarily inaccurate, but that without a threshold of companies responding to the CDP with proper data, the accuracy of the CDP's reports cannot be guaranteed. This means that if, as has been suggested previously, the CDP as repository of information can induce firms to provide proper data, then this issue disappears.

Another important aspect of the reports is their division of firms into two bins, carbon intensive industries and non-carbon intensive industries. By dividing all firms

into these two categories it becomes much easier to compare accurately the emissions data and plans in place in companies of relevant backgrounds. It makes little sense to hold a coal-mining firm to the same standard as a tech firm, because they will have different business requirements and demands. This differentiation also, therefore, helps to separate firms that have successful emissions programs in place in the carbon intensive industries from firms that are not doing as well in non-carbon intensive industries. In other words, it becomes harder for certain firms to hide in the data. This pushes for more accuracy and thus enhances the credibility of the information providing capabilities of the CDP.

One last aspect of the reports is their author. By contracting this out to other firms, Innovest for the first 5 years, PWC in the last and future editions, the CDP can remain a neutral party. While this does open the potential for influence from companies on the firms that write the reports, by creating a financial incentive for the authoring firms to accurately write the reports there is a much lower probability that these efforts of cheating will be successful.

Leadership Rankings

The CDP includes a ranking of firms based on their reporting depth in each annual publication. Rather than assess how effective firms are in reducing carbon emissions, or how good their carbon strategies are, it merely measures how completely a firm reports on this information. As Melanie Collinson explains, "[t]he index that identifies the leaders does not assess a company's climate change performance or risk

exposure. It is purely a measure of the coverage, depth, and detail provided."[29]

At first glance, the fact that the Carbon Disclosure Leadership Index (CDLI) rankings only assess the level of reporting, rather than the actual carbon emissions programs in place by companies appears to give the index more credibility. It keeps the CDP from putting their own subjective take on how "best" a company can tackle carbon emissions, especially when many of the companies come from very different industries and with their own unique challenges. It also reduces undue influence that would ultimately arise out of the power any such reporting agency would have on which practices are considered "best" in reducing emissions.

However, the index is not as clear-cut as it is made out to be. First off, the reporting done by companies includes both quantitative as well as qualitative data. The methodology used to assess how "deep" or "detailed" qualitative reporting would need to be published, to allow all those using these rankings to know how a company can be deemed a "good reporter". Thankfully, the CDP provides a complete explanation of the methodology as well as the scores of all firms at the end of each report. This is very valuable information and should be made more easily accessible. Looking at the methodology doesn't confer much hope, however, as at least half or more of the variables are not binary (0 or 1 point). The very nature of assessing the quality of qualitative data makes comparisons between companies difficult and means that in reality the assessing institution does make some judgment calls on what it feels is good reporting versus bad in the CDLI rankings.

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[29] Melanie Collinson, "Get It Done," February 2008, OilWeek.com, December 2008 <http://www.oilweek.com/articles.asp?ID=521>.

Another positive aspect of the CDLI rankings is that the CDP is not the institution that does the ratings. This job is contracted out to a third party firm to complete, again keeping the CDP neutral. Whether the CDP has a say in how the rating firm chooses to rate qualitative data is not clear, and can negate the benefit of not doing the entire rating themselves, but on the whole, the CDP's efforts at remains neutral are somewhat admirable and do help the credibility of the CDP as a reporting platform.

Finally, firms that do not allow the CDP to publically publish the companies' responses are not included in the rankings. As the group states, "It should also be noted that, in contrast to previous years, any CDP6 response that is 'not public' was not considered for inclusion in the CDLI on the grounds that this is not within the overall spirit of the disclosure exercise."[30] By keeping these firms out of the ranking, the CDP keeps the report (mostly) transparent, important for any effort at maintaining credibility.

Other Initiatives

The CDP has initiated other areas for carbon emission data reporting besides private, big brand companies. The first is the supply chain initiative, which, while new, does not have the same kind of response as the corporate data gathering. Only 44%[31] of the solicited companies chose to respond in the first (and most recent) report, and "the quantitative data on greenhouse gas emissions [is] disappointing."[32] The reason for the

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30 Carbon Disclosure Project, "Carbon Disclosure Project Report 2008 - FTSE 350," 22. 2008.
31 Carbon Disclosure Project, "Carbon Disclosure Project SCLC Pilot Report," 2008.
32 Pete Foster, "CDP6 Responses," 26 September 2008, The Green IT Review, December 2008 <http://www.thegreenitreview.com/search/label/CDP>.

two outcomes, in contrast to the reporting by the largest global firms has much to do with the target market. Because those companies down the supply chain have an indirect, rather than direct relation to end-users there is less incentive for them to participate in the CDP data collection efforts. In other words, because it is not really their name that suffers from not reporting carbon emissions they will not do it, or will only do so with sparse data. Only if the CDP can somehow induce these companies to report their data, and give them an incentive to supply accurate information are the reports on the supply chain companies going to be credible.

The second and third areas of interest are on the public sector, with the CDP's Cities Programme and the Public Procurement effort. The first of these efforts will likely have a much better response than the supply chain initiative, and will in fact, probably be even more credible than the corporate data publishing. Again, this has to do with the target market, both in terms of whom the information is for, but also in who is providing the data. The Cities Programme is a partnership with cities from around the world, and they not only have an incentive to offer real data, but they are actively working to do so. Given that the funding for the public sector is from the taxpayers, if taxpayers demand that these institutions publish and reduce their emissions, they will do so (for the most part). The results for the Public Procurement effort is somewhat mixed, but in the end, if the institutions that these companies supply to, the government, demand they publish data, there is little besides not providing goods and services to the public sector that these companies can do. The only caveat is on accuracy, and these companies will only provide accurate data if they are required to have legitimate verifiers.

Conclusion

All the discussion so far has been dancing around one important factor: what is the purpose of the CDP. The demands placed on this organization ultimately determine how credible of an institution it really is, and how each of the above aspects play into that credibility. For those that run the CDP, the organization is in place first and foremost to push companies to begin thinking about how their actions affect climate change and to quantify this affect. Their goal is to become the preeminent carbon emission repository and sign on as many institutional investors to make further that purpose.

Looking at the credibility of the CDP through this lens is quite different from how many other would like to see it. If the main goal is to simply get as many organizations to report in a coherent and public way, then issues of data validity aren't as important. For the CDP, just getting firms to provide data means they are helping to change the corporate culture to think in a more environmentally friendly way. Having firms that acknowledge that their practices may be hurting the environment and may have a negative effect on business is a huge win for the CDP. Certain aspects of the setup of the organization do further the goal of accurate data collection, such as the use of the GHG Protocol and the framing of the incentives in such a way as to show that the value of the firms' equity is tied to their emissions practices and reporting. As the CDP stands now, however, accuracy is not the main goal and its credibility as a reporting platform shouldn't be assessed based on this factor.

But this then begs the question, does merely providing data from all the firms in

the industry really create a culture of action, especially if much of that data is wrong? On this score the credibility of the CDP is mixed. If firms use the organization as a greenwashing tool, by providing inaccurate data and playing on their publication as a method for improving sales or equity values, then the CDP does little to truly change the business culture to begin factoring in environmental impact. Getting firms to publish data, any data, shouldn't be the end-all be-all, but only the beginning. Working to make sure that the information is accurate is an important part of truly changing the culture of business. Because at the end of the day, the really fundamental purpose of the CDP is in solving the climate change problem, and their actions at present, while admirable and important, will not get our society to the finish line.

Thankfully, as already stated, much of the setup of the organization does lead to a natural move toward more accurate and public data, but the CDP needs to recognize the importance of this aspect and work towards this goal once it has reached a sufficient size[33]. At present, the CDP appears locked in a semantic battle between the goals of massive data publishing and reaching critical mass, and the goals of accurate data publication and a true business interest in emissions issues because it is impossible to ignore the conflict between the greenwashing of the former and true change of the latter. Only time will tell whether the actions of the CDP and reporting platforms in general have helped spur the business community into dealing with their carbon emissions in a meaningful way.

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[33] The author recognizes the valid point of creating a critical mass and turning the CDP into an indispensible organization before being able to move on the greater goal of affecting accurate reporting.

Recommendations

The CDP must work on greater transparency in much of its dealings. The following is a list of recommendations for greater disclosure:

- Trustees or Board Members should be listed on the website in an easily accessible location;
- Financial information for the organization should be provided on the website as well, and ideally with an accurate and up-to-date chart on which institutions have provided the CDP funding and for how much and how long;
- The verifying organizations used by all the published companies should be listed in a specific location on the website with links to their own websites to allow individuals to assess their credibility;
- Whether a firm has used the GHG Protocol or a third party verifier should be displayed prominently in any publication, allowing individuals to see the credibility of the data at first glance;
- There should be more clarity on the CDLI methodology and how non-binary scales are decided. This should also be published on the CDP website.

In the future, when the CDP reaches critical mass as an indispensible organization (i.e., companies would lose too much not to publish) it would be in the best interest of the CDP to require companies to use the GHG Protocol and third party verifiers chose by the organization.

Discussion Questions

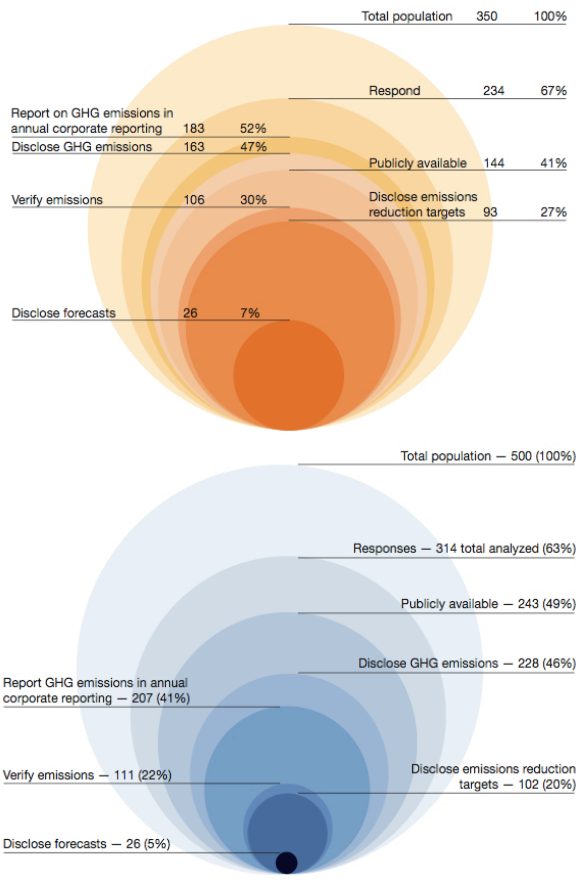
1. Does the governance of the CDP hinder or help in the cause of publishing factually accurate information?
2. Where does the CDP get its funding and how do these different sources affect the credibility of the organization?
3. What benefits and costs accrue from the use of the GHG Protocol?
4. What effect do the institutional investors have on the CDP's ability to carry out its purpose?
5. How does taking monitoring out of the hands of the CDP affect its credibility?
6. Who uses the information in the CDP database? Is it user-friendly or does it require an intermediary? How does this affect the dissemination of information and ease of false reporting?
7. If the CDP starts ranking companies based on more than just depth and detail of carbon disclosure, how will this change the role of the CDP?
8. Who is the target market for the CDP? How does this affect the information provided or the services offered?
9. What is the cost to the CDP for getting information wrong? For incorrect reporting? Publishing information that is purposely inaccurate (i.e., companies knowingly provide incorrect information)?
10. Does it matter if negative publicity is created about the CDP?

Appendix A: Selected Corporate Reporting Figures

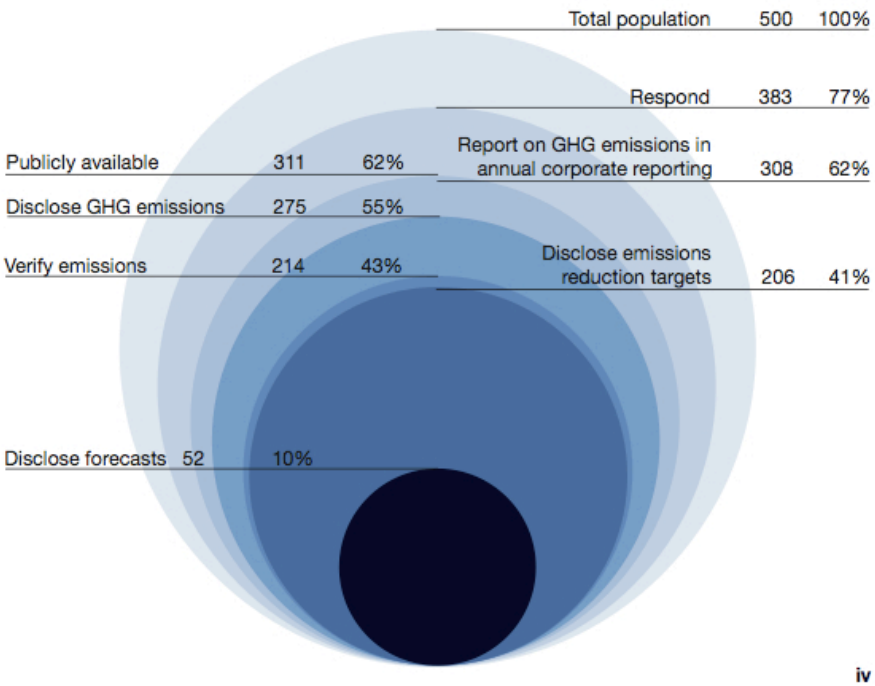
The following figures highlights the major performance gaps between:

- The FTSE 350, S&P 500 and Global 500 populations and the number responding to CDP, respectively; and
- The number of companies disclosing emissions and the number that have their emissions data verified;
- Other comparative information.

FTSE 350 **S&P 500**



Global 500



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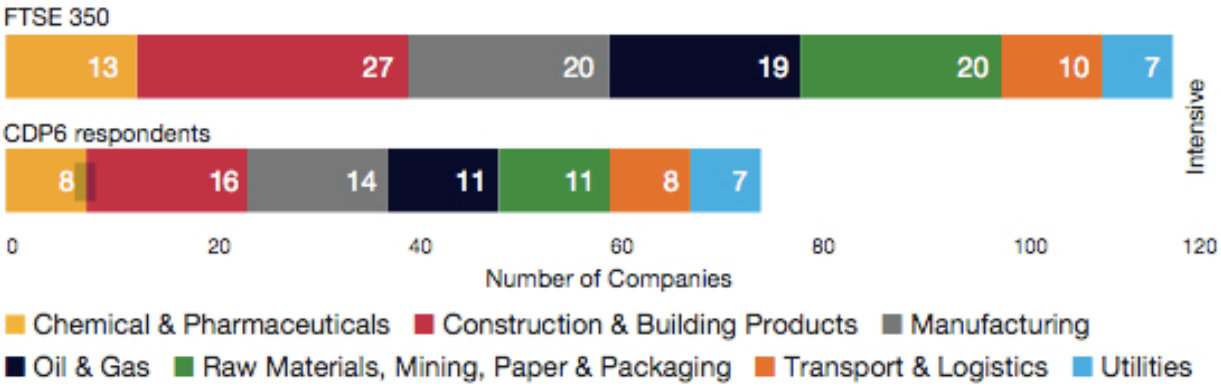
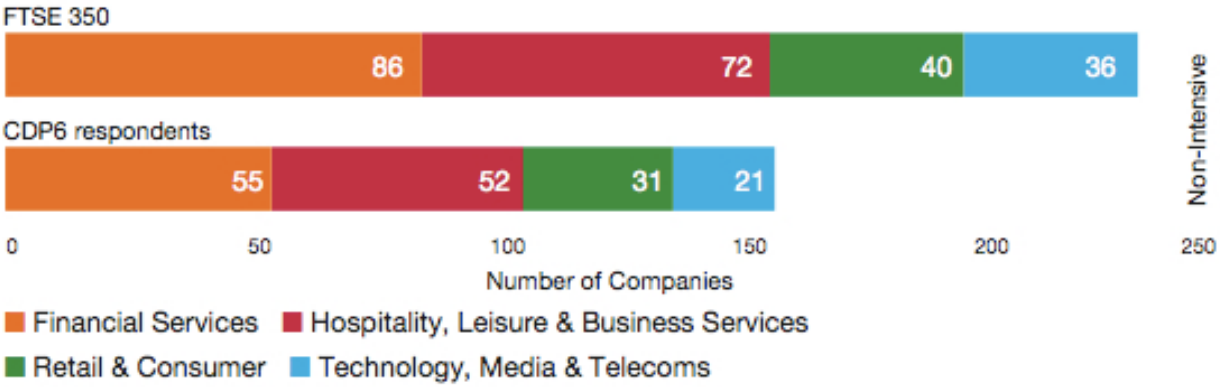
Appendix B: Carbon Intensive vs. Non-Carbon Intensive Industry Designations

The following show the different industries in the carbon-intensive and non-carbon intensive categories from the FTSE 350 Report.

Carbon Intensive:



Non-Carbon Intensive:



Appendix C: CDP Signatories

CDP Signatories 2008

385 investors with assets of over $57 trillion were signatories to the CDP6 information request dated 1st February 2008 including:

AACHENER GRUNDVERMÖGEN KAG mbH **Germany**
Abax Global Capital **United Kingdom**
Aberdeen Asset Managers **United Kingdom**
ABRAPP – Associação Brasileira das Entidades Fechadas de Previdência Complementar **Brazil**
Acuity Funds **Canada**
Aegon N.V. **Netherlands**
Aeneas Capital Advisors **U.S.**
AGF Management Limited **Canada**
AIG Investments **U.S.**
Alberta Teachers Retirement Fund **Canada**
Alcyone Finance **France**
Allianz Group **Germany**
Altshuler Shacham LTD **Israel**
AMP Capital Investors **Australia**
AmpegaGerling Investment GmbH **Germany**
ANBID – National Association of Brazilian Investment Banks **Brazil**
APG Investments **Netherlands**
ASB Community Trust **New Zealand**
ASN Bank **Netherlands**
ATP Group **Denmark**
Australia and New Zealand Banking Group Limited **Australia**
Australian Ethical Investment Limited **Australia**
Australian Reward Investment Alliance (ARIA) **Australia**
Aviva plc **United Kingdom**
AXA Group **France**
Baillie Gifford & Co. **United Kingdom**
Banco **Sweden**
Banco Bradesco S.A. **Brazil**
Banco do Brazil **Brazil**
Banco Itaú Holding Financeira **Brazil**
Banco Pine S.A. **Brazil**
Banco Real **Brazil**
Banco Santander, S.A. **Spain**
Banesprev – Fundo Banespa de Seguridade Social **Brazil**
Bank Sarasin & Co, Ltd **Switzerland**
Bank Vontobel **Switzerland**
BankInvest **Denmark**
Barclays Group **United Kingdom**
BayernInvest KAG mbH **Germany**
BBC Pension Trust Ltd **United Kingdom**
Beutel Goodman and Co. Ltd **Canada**
BlackRock **U.S.**
BMO Financial Group **Canada**
BNP Paribas Investment Partners **France**
Boston Common Asset Management, LLC **U.S.**
BP Investment Management Limited **United Kingdom**
Brasilprev Seguros e Previdência S/A. **Brazil**
British Coal Staff Superannuation Scheme **United Kingdom**
British Columbia Investment Management Corporation (bcIMC) **Canada**
BT Financial Group **Australia**
BVI Bundesverband Investment und Asset Management e.V. **Germany**
CAAT Pension Plan **Canada**
Caisse de dépôt et placement du Québec **Canada**
Caisse des Dépôts **France**
Caixa Beneficente dos Empregados da Companhia Siderurgica Nacional – CBS **Brazil**
Caixa de Previdência dos Funcionários do Banco do Nordeste do Brasil (CAPEF) **Brazil**
Caixa Econômica Federal **Brazil**
Caixa Geral de Depósitos **Portugal**
California Public Employees' Retirement System **U.S.**
California State Teachers Retirement System **U.S.**
California State Treasurer **U.S.**
Calvert Group **U.S.**
Canada Pension Plan Investment Board **Canada**
Canadian Friends Service Committee **Canada**
CARE Super Pty Ltd **Australia**
Carlson Investment Management **Sweden**
Carmignac Gestion **France**
Catherine Donnelly Foundation **Canada**
Catholic Super **Australia**
CCLA Investment Management Ltd **United Kingdom**
Central Finance Board of the Methodist Church **United Kingdom**
Ceres **U.S.**
CERES-Fundação de Seguridade Social **Brazil**
Cheyne Capital Management (UK) LLP **United Kingdom**
China Investment Corporation **China**
Christian Super **Australia**
CI Mutual Funds' Signature Advisors **Canada**
CIBC **Canada**
Citizens Advisers, Inc. **U.S.**
Clean Yield Group, Inc. **U.S.**
ClearBridge Advisors, Socially Aware Investment **U.S.**
Close Brothers Group plc **United Kingdom**
Colonial First State Global Asset Management **Australia**
Columbia Management **U.S.**
Comité syndical national de retraite Bâtirente **Canada**
Commerzbank AG **Germany**
Companhia de Seguros Aliança do Brasil **Brazil**
Connecticut Retirement Plans and Trust Funds **U.S.**
Co-operative Financial Services (CFS) **United Kingdom**
Credit Agricole Asset Management **France**
Credit Suisse **Switzerland**
Daegu Bank **South Korea**
Daiwa Securities Group Inc. **Japan**
DEGI Deutsche Gesellschaft für Immobilienfonds mbH **Germany**
Deka FundMaster Investmentgesellschaft mbH **Germany**
Deka Investment GmbH **Germany**
DekaBank Deutsche Girozentrale **Germany**
Delta Lloyd Investment Managers GmbH **Germany**
Deutsche Bank **Germany**
Deutsche Postbank Privat Investment KAG mbH **Germany**
Development Bank of Japan **Japan**
Development Bank of the Philippines (DBP) **Philippines**
Dexia Asset Management **France**
DnB NOR Asset Management **Norway**
Domini Social Investments LLC **U.S.**
DPG Dt. Per.Gesellschaft für Wertpapierportfolio mbh **Germany**
DWS Investment GmbH **Germany**
Economus Instituto de Seguridade Social **Brazil**
ELETRA – Fundação Celg de Seguros e Previdência **Brazil**
Environment Agency Active Pension fund **United Kingdom**
Epworth Investment Management **United Kingdom**
Erste Bank der Oesterreichischen Sparkassen AG **Austria**
Ethos Foundation **Switzerland**
Eureko B.V. **Netherlands**
Eurizon Capital SGR **Italy**
Evli Bank Plc **Finland**
F&C Management Ltd **United Kingdom**
FAELCE – Fundação Coelce de Seguridade Social **Brazil**
FAPERS – Fundação Assistencial e Previdenciária da Extensão Rural do Rio Grande do Sul **Brazil**
FAPES – Fundação de Assistencia e Previdencia Social do BNDES **Brazil**
Fédéris Gestion d'Actifs **France**
First Affirmative Financial Network **U.S.**
First Swedish National Pension Fund (AP1) **Sweden**
FirstRand Ltd. **South Africa**
Fishman & Co. **Israel**
Five Oceans Asset Management Pty Limited **Australia**
Florida State Board of Administration (SBA) **U.S.**

Folksam **Sweden**

Fondaction **Canada**

Fonds de Réserve pour les Retraites – FRR **France**

Fortis Investments **Belgium**

Forward Funds/Sierra Club Funds **U.S.**

Fourth Swedish National Pension Fund (AP4) **Sweden**

Frankfurter Service Kapitalanlage-Gesellschaft mbH **Germany**

FRANKFURT-TRUST Investment Gesellschaft mbH **Germany**

Franklin Templeton Investment Services GmbH **Germany**

Frater Asset Management **South Africa**

Front Street Capital **Canada**

Fukoku Capital Management Inc **Japan**

FUNCEF – Fundação dos Economiários Federais **Brazil**

Fundação AMPLA de Seguridade Social – Brasiletros **Brazil**

Fundação Atlântico de Seguridade Social **Brazil**

Fundação Banrisul de Seguridade Social **Brazil**

Fundação Codesc de Seguridade Social – FUSESC **Brazil**

Fundação Corsan – dos Funcionários da Companhia Riograndense de Saneamento **Brazil**

Fundação São Francisco de Seguridade Social **Brazil**

Fundação Vale do Rio Doce de Seguridade Social – VALIA **Brazil**

FUNDIÁGUA – Fundação de Previdência da Companhia de Saneamento e Ambiental do Distrito Federal **Brazil**

Gartmore Investment Management Ltd **United Kingdom**

GEAP Fundação de Seguridade Social **Brazil**

Generali Investments Deutschland KAG mbH **Germany**

Generation Investment Management **United Kingdom**

Genus Capital Management **Canada**

Gjensidige Forsikring **Norway**

GLG Partners LP **United Kingdom**

Goldman Sachs & Co. **U.S.**

Governance for Owners **United Kingdom**

Groupe Investissement Responsable Inc. **Canada**

Guardian Ethical Management Inc **Canada**

Guardians of New Zealand Superannuation **New Zealand**

Hang Seng Bank **Hong Kong**

Harrington Investments **U.S.**

Harvard Management Company **U.S.**

HANSAINVEST Hanseatische Investment GmbH **Germany**

Hazel Capital LLP **United Kingdom**

Health Super Fund **Australia**

Helaba Invest KAG mbH **Germany**

Henderson Global Investors **United Kingdom**

Hermes Investment Management **United Kingdom**

HESTA Super **Australia**

Hospitals of Ontario Pension Plan (HOOPP) **Canada**

Housing Development Finance Corporation Limited (HDFC Ltd.) **India**

HSBC Holdings plc **United Kingdom**

I.B.I. Investments House Ltd. **Israel**

IDEAM – Integral Development Asset Management **France**

Ilmarinen Mutual Pension Insurance Company **Finland**

Industrial Bank **China**

Industry Funds Management **Australia**

ING **Netherlands**

Inhance Investment Management Inc **Canada**

Insight Investment Management (Global) Ltd **United Kingdom**

Instituto Infraero de Seguridade Social – INFRAPREV **Brazil**

Insurance Australia Group **Australia**

Interfaith Center on Corporate Responsibility **U.S.**

Internationale Kapitalanlagegesellschaft mbH **Germany**

Investec Asset Management **United Kingdom**

Jarislowsky Fraser Limited **Canada**

JPMorgan Asset Management **U.S.**

Jupiter Asset Management **United Kingdom**

KBC Asset Management NV **Belgium**

KCPS and Company **Israel**

KfW Bankengruppe **Germany**

KLP Insurance **Norway**

Kyobo Investment Trust Management Co., Ltd. **South Korea**

La Banque Postale Asset Management **France**

LBBW – Landesbank Baden-Württemberg **Germany**

Legal & General Group plc **United Kingdom**

Legg Mason, Inc. **U.S.**

Libra Fund **U.S.**

Light Green Advisors, LLC **U.S.**

Living Planet Fund Management Company S.A. **Switzerland**

Local Authority Pension Fund Forum **United Kingdom**

Local Government Superannuation Scheme **Australia**

Lombard Odier Darier Hentsch & Cie **Switzerland**

London Pensions Fund Authority **United Kingdom**

Macif Gestion **France**

Macquarie Group Limited **Australia**

Maine State Treasurer **U.S.**

Man Group plc **United Kingdom**

Maple-Brown Abbott Limited **Australia**

Maryland State Treasurer **U.S.**

MEAG MUNICH ERGO Asset Management GmbH **Germany**

MEAG MUNICH ERGO KAG mbH **Germany**

Meeschaert Gestion Privée **France**

Meiji Yasuda Life Insurance Company **Japan**

Merck Family Fund **U.S.**

Meritas Mutual Funds **Canada**

Merrill Lynch & Co.,Inc. **U.S.**

METZLER INVESTMENT GMBH **Germany**

Midas International Asset Management **South Korea**

Mirae Investment Asset Management **South Korea**

Mistra, Foundation for Strategic Environmental Research **Sweden**

Mitsubishi UFJ Financial Group (MUFG) **Japan**

Mitsui Sumitomo Insurance Co.,Ltd. **Japan**

Mizuho Financial Group, Inc. **Japan**

Monega KAG mbH **Germany**

Monte Paschi Asset Management SGR S.p.A **Italy**

Morgan Stanley Investment Management **U.S.**

Morley Fund Management **United Kingdom**

Motor Trades Association of Australia Superannuation Fund Pty Ltd **Australia**

Münchner Kapitalanlage AG **Germany**

Munich Re Group **Germany**

Natcan Investment Management **Canada**

Nathan Cummings Foundation **U.S.**

National Australia Bank Limited **Australia**

National Bank of Kuwait **Kuwait**

National Grid Electricity Group of the Electricity Supply Pension Scheme **United Kingdom**

National Grid UK Pension Scheme Trustee Ltd **United Kingdom**

National Pensions Reserve Fund of Ireland **Ireland**

Natixis **France**

Nedbank Group **South Africa**

Needmor Fund **U.S.**

Nest Sammelstiftung **Switzerland**

Neuberger Berman **U.S.**

New Alternatives Fund Inc. **U.S.**

New Jersey Division of Investment **U.S.**

New Jersey State Investment Council **U.S.**

New Mexico State Treasurer **U.S.**

New York City Employees Retirement System **U.S.**

New York City Teachers Retirement System **U.S.**

New York State Common Retirement Fund (NYSCRF) **U.S.**

Newton Investment Management Limited **United Kingdom**

NFU Mutual Insurance Society **United Kingdom**

NH-CA Asset Management **South Korea**

Nikko Asset Management Co., Ltd. **Japan**
Nissay Asset Management Corporation **Japan**
Norfolk Pension Fund **United Kingdom**
Norinchukin Zenkyouren Asset Management Co., Ltd **Japan**
North Carolina State Treasurer **U.S.**
Northern Ireland Local Government Officers' Superannuation Committee (NILGOSC) **United Kingdom**
Northern Trust **U.S.**
Oddo & Cie **France**
Old Mutual plc **United Kingdom**
Ontario Municipal Employees Retirement System (OMERS) **Canada**
Ontario Teachers Pension Plan **Canada**
Opplysningsvesenets fond (The Norwegian Church Endowment) **Norway**
Oregon State Treasurer **U.S.**
Orion Energy Systems, Inc. **U.S.**
Pax World Funds **U.S.**
Pension Fund for Danish Lawyers and Economists **Denmark**
Pension Plan of the Evangelical Lutheran Church in Canada **Canada**
PETROS – The Fundação Petrobras de Seguridade Social **Brazil**
PGGM **Netherlands**
Phillips, Hager & North Investment Management Ltd. **Canada**
PhiTrust Active Investors **France**
Pictet Asset Management SA **Switzerland**
Pioneer Investments KAG mbH **Germany**
Portfolio 21 Investments **U.S.**
Portfolio Partners **Australia**
Porto Seguro S.A. **Brazil**
PREVI Caixa de Previdência dos Funcionários do Banco do Brasil **Brazil**
Prudential Plc **United Kingdom**
PSP Investments **Canada**
QBE Insurance Group Limited **Australia**
Rabobank **Netherlands**
Railpen Investments **United Kingdom**
Rathbones/Rathbone Greenbank Investments **United Kingdom**
Real Grandeza Fundação de Previdência e Assistência Social **Brazil**
REDEPREV – Fundação Rede de Previdência **Brazil**
RREEF Investment GmbH **Germany**
Rei Super **Australia**
Rhode Island General Treasurer **U.S.**
RLAM **United Kingdom**
Robeco **Netherlands**
Rock Crest Capital LLC **U.S.**
Royal Bank of Canada **Canada**
SAM Group **Switzerland**
Sanlam Investment Management **South Africa**
Santa Fé Portfolios Ltda **Brazil**
Sauren Finanzdienstleistungen **Germany**
Savings & Loans Credit Union (S.A.) Limited **Australia**
Schroders **United Kingdom**
Scotiabank **Canada**
Scottish Widows Investment Partnership **United Kingdom**
SEB Asset Management AG **Germany**
Second Swedish National Pension Fund (AP2) **Sweden**
Seligson & Co Fund Management Plc **Finland**
SERPROS Fundo Multipatrocinado **Brazil**
Service Employees International Union Benefit Funds **U.S.**
Seventh Swedish National Pension Fund (AP7) **Sweden**
SH Asset Management Inc. **South Korea**
Shinhan Bank **South Korea**
Shinkin Asset Management Co., Ltd **Japan**
Shinsei Bank **Japan**
Siemens KAG mbH **Germany**
Signet Capital Management Ltd **Switzerland**
Skandia Nordic Division **Sweden**
SNS Asset Management **Netherlands**
Société Générale **France**
Sompo Japan Insurance Inc. **Japan**
SPF Beheer bv **Netherlands**
Standard Chartered PLC **United Kingdom**
Standard Life Investments **United Kingdom**
State Street Corporation **U.S.**
Storebrand ASA **Norway**
Sumitomo Mitsui Financial Group **Japan**
Sumitomo Trust & Banking **Japan**
Sun Life Financial Inc. **Canada**
Superfund Asset Management GmbH **Germany**
Sustainable World Capital **U.S.**
Svenska Kyrkan, Church of Sweden **Sweden**
Swedbank **Sweden**
Swiss Reinsurance Company **Switzerland**
Swisscanto Holding AG **Switzerland**
TD Asset Management Inc. and TD Asset Management USA Inc. **Canada**
Teachers Insurance and Annuity Association – College Retirement Equities Fund (TIAA-CREF) **U.S.**
Telstra Super **Australia**
Tempis Capital Management **South Korea**
Terra fondsforvaltning ASA **Norway**
TfL Pension Fund **United Kingdom**
The Bullitt Foundation **U.S.**
The Central Church Fund of Finland **Finland**
The Collins Foundation **U.S.**
The Co-operators Group Ltd **Canada**
The Daly Foundation **Canada**
The Dreyfus Corporation **U.S.**
The Ethical Funds Company **Canada**
The Local Government Pensions Insitution (LGPI) (keva) **Finland**
The RBS Group **United Kingdom**
The Russell Family Foundation **U.S.**
The Shiga Bank, Ltd. **Japan**
The Standard Bank of South Africa Limited **South Africa**
The Travelers Companies, Inc. **U.S.**
The United Church of Canada – General Council **Canada**
The Wellcome Trust **United Kingdom**
Third Swedish National Pension Fund (AP3) **Sweden**
Threadneedle Asset Management **United Kingdom**
Tokio Marine & Nichido Fire Insurance Co., Ltd. **Japan**
Trillium Asset Management Corporation **U.S.**
Triodos Bank **Netherlands**
Tri-State Coalition for Responsible Investing **U.S.**
TrygVesta **Denmark**
UBS AG **Switzerland**
Unibanco Asset Management **Brazil**
UniCredit Group **Italy**
Union Asset Management Holding AG **Germany**
Unitarian Universalist Association **U.S.**
United Methodist Church General Board of Pension and Health Benefits **U.S.**
Universal-Investment-Gesellschaft mbH **Germany**
Universities Superannuation Scheme (USS) **United Kingdom**
Vancity Group of Companies **Canada**
Vårdal Foundation **Sweden**
VERITAS SG INVESTMENT TRUST GmbH **Germany**
Vermont State Treasurer **U.S.**
VicSuper Pty Ltd **Australia**
Victorian Funds Management Corporation **Australia**
Visão Prev Sociedade de Previdencia Complementar **Brazil**
Wachovia Corporation **U.S.**
Walden Asset Management, a division of Boston Trust and Investment Management Company **U.S.**
WARBURG-HENDERSON KAG für Immobilien mbH **Germany**
West Yorkshire Pension Fund **United Kingdom**
WestLB Mellon Asset Management (WMAM) **Germany**
Winslow Management Company **U.S.**
XShares Advisors **U.S.**
YES BANK Limited **India**
York University Pension Fund **Canada**
Youville Provident Fund Inc. **Canada**
Zurich Cantonal Bank **Switzerland**

Appendix D: CDP6 Global 500 Questionnaire

CDP6 Questionnaire

1 Risks and Opportunities

Objective: To identify strategic risks and opportunities and their implications.

a **Risks:** (CDP5 Question 1a)

i **Regulatory Risks:** How is your company exposed to regulatory risks related to climate change?

ii **Physical Risks:** How is your company exposed to physical risks from climate change?

iii **General Risks:** How is your company exposed to general risks as a result of climate change?

iv **Risk Management:** Has your company taken or planned action to manage the general and regulatory risks and/or adapt to the physical risks you have identified?

v **Financial and Business Implications:** How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?

b **Opportunities:** (CDP5 Question 1b)

i **Regulatory Opportunities:** How do current or anticipated regulatory requirements on climate change offer opportunities for your company?

ii **Physical Opportunities:** How do current or anticipated physical changes resulting from climate change present opportunities for your company?

iii **General Opportunities:** How does climate change present general opportunities for your company?

iv **Maximizing Opportunities:** Do you invest in, or have plans to invest in products and services that are designed to minimize or adapt to the effects of climate change?

v **Financial and Business Implications:** How do you assess the current and/or future financial effects of the opportunities you have identified and how those opportunities might affect your business?

2 Greenhouse Gas (GHG) Emissions Accounting

Objective: To determine actual absolute Greenhouse Gas emissions.

The term GHG Protocol below refers to The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). This may be found on the GHG Protocol Website www.ghgprotocol.org

a **Accounting Parameters** (CDP5 Question 2a)

i **Reporting Boundary:** Please indicate the category that best describes the company, entities or group for which your response is prepared:
   a. Companies over which financial control is exercised – per consolidated audited Financial Statements.
   b. Companies over which operational control is exercised.
   c. Companies in which an equity share is held.
   d. Other (please provide details).

Please use the same approach for all answers.

ii **Reporting Year:** Please explicitly state the dates of the accounting year or period for which GHG emissions are reported.

iii **Methodology:** Please specify the methodology used by your company to calculate GHG emissions.

b Direct and Indirect Emissions – Scope 1 and 2 of the GHG Protocol (CDP5 Question 2b)

i Are you able to provide a breakdown of your direct and indirect emissions under Scopes 1 and 2 of the GHG Protocol and to analyse your electricity consumption? If so, please provide the following information together with a breakdown of the emissions reported under each category by country where possible. If not, please proceed to question 2b ii:

Scope 1 Direct GHG Emissions
a. Total global Scope 1 activity in metric tonnes CO_2-e emitted.
b. Total Scope 1 activity in metric tonnes CO_2-e emitted for Annex B countries.

Scope 2 Indirect GHG Emissions
c. Total global Scope 2 activity in metric tonnes CO_2-e emitted.
d. Total Scope 2 activity in metric tonnes CO_2-e emitted for Annex B countries.

Electricity consumption
e. Total global MWh of purchased electricity.
f. Total MWh of purchased electricity for Annex B countries.
g. Total global MWh of purchased electricity from renewable sources.
h. Total MWh of purchased electricity from renewable sources for Annex B countries.

ii If you are unable to detail your Scope 1 and Scope 2 GHG emissions and/or electricity consumption, please report the GHG emissions you are able to identify together with a description of those emissions.

c Other Emissions – Scope 3 of GHG Protocol: (CDP5 Question 2c)
How do you identify and/or measure Scope 3 emissions? Please provide where possible:
a. Details of the most significant Scope 3 sources for your company.
b. Details in metric tonnes CO_2-e of GHG emissions in the following categories:
i Employee business travel.
ii External distribution/logistics.
iii Use/disposal of company's products and services.
iv Company supply chain.
c. Details of the methodology you use to quantify or estimate Scope 3 emissions.

d External Verification (CDP5 Question 2a iii)

i Has the information reported in response to Questions 2b – c been externally verified or audited or do you plan to have the information verified or audited? If so:

ii Please provide a copy of the audit or verification statement or state your plans for verification.

iii Please specify the Standard or Protocol against which the information has been or will be audited or verified.

e Data Accuracy (New to CDP6)

Does your company have a system in place to assess the accuracy of GHG emissions inventory calculation methods, data processes and other systems relating to GHG measurement? If so, please provide details. If not, please explain how data accuracy is managed.

f Emissions History (CDP5 Question 2a iv)

Do the emissions reported for your last accounting year vary significantly compared to previous years? If so, please explain the reasons for the variations.

g Emissions Trading (CDP5 Question 4b)

i Does your company have facilities covered by the EU Emissions Trading Scheme? If so:
a. Please provide details of the annual allowances awarded to your company in Phase I for each of the years from 1 January 2005 to 31 December 2007 and details of allowances allocated for Phase II commencing on 1 January 2008.
b. Please provide details of actual annual emissions from facilities covered by the EU ETS with effect from 1 January 2005.
c. What has been the impact on your company's profitability of the EU ETS?

ii What is your company's strategy for trading or participating in regional and/or international trading schemes (eg: EU ETS, RGGI, CCX) and Kyoto mechanisms such as CDM and JI projects?

h Energy Costs (CDP5 Question 4d)

i Please identify the total costs in US $ of your energy consumption eg from fossil fuels and electric power.

ii What percentage of your total operating costs does this represent?

iii What percentage of energy costs are incurred on energy from renewable sources?

3 Performance

Objective: To determine performance against targets and plans to reduce GHG emissions.

a Reduction Plans (CDP5 Questions 1d and 4a)

i Does your company have a GHG emissions reduction plan in place? If so, please provide details along with the information requested below. If there is currently no plan in place, please explain why.

ii What is the baseline year for the emissions reduction plan?

iii What are the emissions reduction targets and over what period do those targets extend?

iv What activities are you undertaking to reduce your emissions e.g.: renewable energy, energy efficiency, process modifications, offsets, sequestration etc? What targets have you set for each and over what timescales do they extend?

v What investment has been or will be required to achieve the targets and over what time period?

vi What emissions reductions and associated costs or savings have been achieved to date as a result of the plan?

b Emissions Intensity (CDP5 Question 4c)

i What is the most appropriate measurement of emissions intensity for your company?

ii Please state your GHG emissions intensity in terms of total tonnes of CO_2-e reported under Scope 1 and Scope 2 per US $m turnover and EBITDA for the reporting year.

iii Has your company developed emissions intensity targets? If so:
a. Please state your emissions intensity targets.
b. Please state what reductions in emissions intensity have been achieved against targets and over what time period.

If not, please explain why.

c Planning (CDP5 Question 4e)

Do you forecast your company's future emissions and/or energy use? If so:

i Please provide details of those forecasts, summarize the methodology used and the assumptions made.

ii How do you factor the cost of future emissions into capital expenditure planning?

iii How have these considerations made an impact on your investment decisions?

4 Governance

Objective: To determine responsibility and management approach to climate change.

a Responsibility (CDP5 Question 5a)

Does a Board Committee or other executive body have overall responsibility for climate change? If not, please state how overall responsibility for climate change is managed. If so:

i Which Board Committee or executive body has overall responsibility for climate change?

ii What is the mechanism by which the Board or other executive body reviews the company's progress and status regarding climate change?

b Individual Performance (CDP5 Question 5b)

Do you assess or provide incentive mechanisms for individual management of climate change issues including attainment of GHG targets? If so, please provide details.

c Communications (New to CDP6)

Please indicate whether you publish information about the risks and opportunities presented to your company by climate change, details of your GHG emissions and plans to reduce emissions through any of the following communications:

i the company's Annual Report or other statutory filings, and/or

ii formal communications with shareholders or external parties, and/or

iii voluntary communications such as Corporate Social Responsibility reporting.

If so, please provide details and a link to the document(s) or a copy of the relevant excerpt.

d Public Policy (New to CDP6)

Do you engage with policymakers on possible responses to climate change including taxation, regulation and carbon trading? If so, please provide details.