

Greenhouse gas reporting and the Carbon Disclosure Project

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Abstract

This paper explores the voluntary disclosure of climate change-related information by global energy companies responding to the Carbon Disclosure Project (CDP), and examines the use of the Greenhouse Gas (GHG) Protocol as a reporting model. Findings indicate that the many and varied voluntary disclosure regimes that are used by companies to report GHG data will inhibit the usefulness of climate change-related data. This paper raises the possibility that information gathered under the CDP and GHG Protocol will do little to inform the investing public and abate climate change.

Keywords: climate change, carbon disclosures, GHG Protocol.

1. Introduction

“It is difficult to get a man to understand something when his salary depends on not understanding it” (Al Gore quoting Upton Sinclair in *An Inconvenient Truth*, 2006)

Much has been written about climate change and over the last few years the issue has taken centre stage in public and political discussions. There are few fields that are unaffected by the collective effort to address climate change, with many only beginning to realise the critical role they play in managing the impacts of climate change and developing sustainable futures. Amongst the professional responses that are emerging, the accounting profession sees itself as integral to the development of disclosure practices that can assist broader public decision making (ACCA Global, 2008; CPA Australia, 2008; KPMG, 2008).

There is ample financial accounting literature that discusses the nature of accounting information; its usefulness and its limitations (Chua, 1986; Hopwood, 2000; Gaffikin, 2008). As accounting is a social practice, its purpose and emphasis has changed over time (Carmona & Ezzamel, 2007; Jones & Oldroyd, 2009). It will continue to change as demand for different information grows and as our priorities shift towards pressing social and environmental issues. This has been apparent over the last ten years as accountants have become more involved in the disclosure of social and environmental information emerging from government organisations, non government organisations, and public and private corporations (Tilt, 2001; Campbell et al., 2003; Adams & Frost, 2008). Although researchers are still assessing the contribution that such information is making to a more sustainable and equitable future, it is indicative of a change in the broader socio-political context in which these institutions operate. The volume of corporate social reporting practice and research is testament to this shift, as

are the growing voluntary and mandatory regulatory regimes that have emerged to encourage standardised reporting and disclosure practices (Moore & Wen, 2008).

Fundamentally, the whole process of disclosure is based on a set of assumptions about how information can be and is used once it is placed in the public domain (Stanton, 1997). Proponents of transparent disclosures argue that action is only possible when information is made available and as such, information that is available needs to have certain qualitative characteristics. Most of us seek out information in order to inform our decision making, and for the purposes of this paper we assume that information is essential to climate related decision making, such as public policy development, internal management decisions and capital allocation decisions. We do not, however, assume that the information is transparent. Although transparency is often the stated aim of these disclosures, many prior researchers have argued that the process of disclosure enables another representation of an organisation (Hines, 1988; Andrew, 2001). This paper considers how firms are representing their greenhouse gas related impacts and how these may influence, support or obscure climate change abatement policy development. The capacity to use disclosure regimes to position information favourably to the discloser is well documented, however it is also possible that the disclosure regime itself can be influenced (Beder, 1997). As greenhouse gas emission disclosures have become increasingly important to investors, insurers, policy makers, markets and, particularly, emerging tradeable permit markets there have been a number of international and national attempts to regulate these practices.

In order to explore some of the issues that are emerging around carbon related disclosure and its regulation, this paper considers the largest voluntary carbon

disclosure regime, the growing Carbon Disclosure Project (CDP). It is largest international repository of corporate carbon data. As yet, there has been little academic research into the types of disclosures made by companies reporting to the CDP. Given the size and scope of the CDP, this study seeks to redress this void through an examination of the data provided by global energy firms. Global energy firms have been under considerable pressure to manage their carbon impacts, and given that they are a highly visible sector our analysis is focused on their reporting practices and underlying reporting methodologies².

The intention of this paper is twofold. First, we explore the regulation of carbon disclosure and whether emerging carbon related disclosures are regulated to encourage a sustainable future or whether voluntary regimes are contributing to a co-option of the carbon debate. Second, we explore these issues with specific reference to energy firms reporting within the CDP framework to examine carbon related disclosure practices and the impact this may have on climate change abatement. Our preliminary results indicate that although the CDP requests that information be supplied with reference to the Greenhouse Gas Protocol, the many and varied disclosure regimes used by companies to report their Greenhouse Gas emissions inhibits the comparability and usefulness of the information. In order to position this discussion, we begin by considering broader environmental discourses that have influenced the construction of the debate around climate change, climate change regulation and emerging disclosure practices. We argue that environmental discourses provide the context in which practice emerges and that knowledge of this context

² We use the term methodologies here because that is the terminology used by the CDP. Technically, they are more akin to methods.

enriches our understanding of that practice and also provides a context for potential transformation, challenge and change.

2. Theorising Climate Change Regulation: A Critical Dialogic Engagement

Given that SEA [social and environmental accounting] is premised on the assumption that something needs to be addressed, it naturally sets up the opportunity for problematization and thus for dialogic engagements. SEA, if it is to bring about change, must therefore challenge existing powerful elites...What is crucial is that these political accounts are challenged in order to prevent further social and environmental oppression via this form of cultural invasion (Bebbington et al., 2007,p.369).

There is a great deal of literature that engages with the idea of environmental discourse (see for example Benton & Short, 1999; Beder, 2006a). If we accept, at a very basic level, that discourses are the general ideas that we attach ourselves to in order make sense of the world then, in part, discourses embody a set of assumptions about the world. These may assist in our access to knowledge of the world, but they also may delimit the 'knowable' and the 'acceptable'. According to Feindt and Oels (2005, p.164) "a discourse is constitutive of 'reality' in that it physically shapes reality. A discourse constitutes specific ways of being engaged in the world and of being related to it". In such a context, discourses are never static or complete, and although some may play a central role in the mediation of our knowledge of the world, these can always be challenged and re-imagined (Dillard, 1991). Environmental discourses work to shape and govern the ideas we have of our surroundings, our experiences of nature and our individual and collective responses to environmental challenges. According to Benton and Short (1999, p.2), the "environment is as much a social construct as a physical presence 'out there'...as much constructed as it is discovered, catalogued, identified and classified".

Although dominant discourses of the environment have emerged, and often taken a procedural view of the planet and its purposes, there are alternatives (Dryzek, 1997). The literature on environmental discourses has sought to find space to discuss these and offer alternative ways of conceptualising the environment that may help to illuminate pathways to a more sustainable future, or what Dryzek (1997) calls ecological democracy. Discourses can delimit the boundaries of policy so it is important to consider the material consequences of power relations within this context and explore policy possibilities that lay outside the bounds. According to Feindt and Oels (2005, p.164) “by delineating legitimate forms of truth production from illegitimate ones, a discursive formation includes the establishment of the terms of its reproduction and the allocation of empowering and disempowering subject positions”. According to some accounting researchers, this kind of exploration may benefit from a more critical dialogic engagement with SEA issues. In particular the work of Bebbington et al. (2007) has contributed to the theorising of such engagement within the field of SEA.

To enable the emergence of other discursive possibilities, Bebbington et al. (2007) have suggested that researchers consider critical dialogic engagement with environmental issues. They do not direct researchers to an appropriate way to do this, but instead provide a theoretical frame of reference that they describe as “coherently messy” (Bebbington et al., 2007, p.372) to facilitate such engagement. Given this, we have chosen to ‘apply’ Bebbington et al’s (2007) suggestions to our exploration of the role of voluntary disclosure regime that has emerged from a non-elected governance body, the CDP. Although we will talk about the CDP in more detail in a later section of the paper, in essence it is an organisation that has designed a carbon questionnaire

on behalf of a corporate conglomerate to collect and publish carbon related information for public/investor consumption. The CDP stores the carbon data provided by large multinational corporations for the general public to access and use and, as a result, it plays an interesting role in the emerging discourses of greenhouse gas accounting. Bebbington et al. (2007, p.357) encourage us to engage with institutions like this, acknowledging that

(r)ecent changes in the corporate form and its pervasiveness in society have led to considerable disquiet about the powers that corporations possess and how these powers are exercised in society, At the same time the perceived ability for nation states to regulate corporations has been significantly diminished. It is within this context that there is increasing interest in how corporations and other social institutions are held accountable for their actions and how this process may lead to their actions being less socially and environmentally damaging.

In recognising the need to develop a critical dialogic engagement with SEA issues we use the work of Sharon Beder to consider the corporatisation of environmental governance through mechanisms such as the CDP. As an academic whose field can be loosely described as science and technology studies, Beder has exposed strategies adopted by institutions, both government and commercial, to make the market appear to be the most natural place in which to renegotiate emerging social and environmental issues (Beder, 2005b). In fact, it could be argued that her work seeks to challenge the market as an appropriate site of ‘dialogic engagement’ in which choices are maximised through the mechanisms of supply and demand and through ‘self regulated’ governance practices. She has argued that the environment should not become an “adjunct to production” (Beder, 2002a, p.50) and that it should be at the core of emerging policies around the environment and in this case, climate change (Beder, 1997, 1999/2000a, 2001, 2002a, 2002b, 2002c).

As Beder (2008b, p.10) has argued, “(t)he rise of corporate power and the increasing importance accorded to markets mean that transnational corporations are eclipsing the

nation state as the driving force behind policy-making”. In line with this, we argue that even if new modes of global governance like those presented by the CDP are independent, they are founded primarily on the assumption that future environmental policy can and should be directed through responsible investment practices and the appropriate allocation of financial resources to carbon responsible corporations. Although carbon information is essential for policy formulation, we draw into question the quality of the data that is being produced and determined by ‘independent financial intermediaries’ who are still beholden to grander goals of capital accumulation – even if this gives way somewhat to a more responsible accumulation of wealth. The fundamentals remain the same, the problems with information remain the same and the capacity to forge a response to the climate crisis may be undermined by project like the CDP as these garner widespread social support as the most logical, feasible and practical approach to minimising carbon. It is possible that self-regulatory devices such as the CDP may further entrench the current economic status quo as the only path to a more environmentally responsible future and that “(s)o-called ‘free’ markets are becoming the new organising principle for the global order” (Beder, 2008b).

Without the critical dialogic engagement argued for by Bebbington et al. (2007) it is very possible that projects like the CDP will enable large multinational corporations another avenue to dictate the terms of future climate change strategy and to delimit their climate responsibilities through mechanisms that claim to be participatory and independent but are in reality funded, influenced and deeply committed to a market oriented solution to climate change. These are described in Bebbington et al.’s (2007) work as emerging regulatory approaches that enables ‘governance by the self’ rather

than a command and control type of regulatory environment. Beder (2008b, p.1.) has argued that corporations have used all mechanisms available to them to build a set of beliefs that tie democratic values to corporate values and to ensure they participate in, and influence, new institutions, organisations and governments so that we believe that “corporations are benevolent institutions that should be minimally regulated because what is good for them is good for society as a whole”.

Both approaches to regulation have limitations, and as we are engaging self regulatory strategy developed through the CDP we will focus our research on the nature of the organisation and the quality of the carbon data that is being fostered through this project. In order for this to be meaningful, and for our theoretical engagement with the empirical data to be understood, we have discussed how Bebbington et al.’s (2007) call for critical dialogic engagement and Beder’s (1997, 1999/2000b, 2001, 2002a, c, b, 2005a, 2006c, a, b, 2008a) prolific body of work on the environment, policy development and corporate power helps us to interpret and analyse the CDP. Although the CDP has emerged within a very clear market framework and to a certain extent disclosure practices have been co-opted by interested parties, it is not yet rigid. Given this, there is still space for alternative discourses, and the emergence of a new greenhouse gas (GHG) accounting discourse that has the potential to be more inclusive and more focused on climate change abatement.

3. The Carbon Disclosure Project

“Through the promotion of an ongoing dialogue between institutional investors and senior corporate management in relation to climate change, CDP plays a vital role in encouraging private and public sector organisations to measure, manage and reduce emissions and climate change impacts” (Carbon Disclosure Project, 2008).

In 2000, the CDP was launched in Britain with a mission to gather as much climate related data from firms and place it in the public domain to enable climate related investor decisions and to encourage climate related management decisions within the responding firms. The first data requests were collected in 2003 and the project has seen extraordinary growth in those requesting the data and those supplying it. From 2003 to 2008 the sample size of companies sent a CDP information request has increased from 500 to 3000; the number of institutional investors requesting data has increased from 35 to 385; and the value of the requesting investor assets under management by these investment houses is now \$57 trillion (Carbon Disclosure Project, 2008). According to the CDP, the response process benefits both reporting firms and users of the information. They argue that reporters benefit because it provides a means through which companies can analyse greenhouse gas emissions and internal energy policies, it is also an opportunity for identifying strategies for management and reduction of emissions, and the process may also provide a benchmarking opportunity that companies can use to measure and improve their own performance. According to the CDP, the data in turn provides investors with information about the strategies that are being adopted by companies across the globe in relation to climate change and it also helps support the development of consistent disclosure practices. To gather data, the CDP sends out an annual “Information Request” to companies across the globe and firms can respond as they see fit. The project is not mandatory and even when answering the questions, companies can skip information or request their response not be made public. As a result there is considerable scope in terms of interpretation and, although encouraged, the information provided does not need to be audited.

Despite the CDP's growth, the response rate by companies has been low and/or responses have been incomplete (for example, in 2008 almost one quarter of respondents did not provide all the information requested). In order to encourage firms to respond and to provide accurate data, the information is made publicly available for comparison and analysis. Up until 2007, there had been a lack of consistency in the information reported in response to the Information Requests, which had limited the perceived usefulness of the information. So in 2007 CDP undertook to "improve the quality of the responses and standardise reporting to facilitate better comparison of data across and within sectors" (Carbon Disclosure Project, 2007, p.4). The fifth round of data (CDP5) was requested and published in 2007 and from this request onwards firms were asked to disclose the methodologies used to arrive at GHG emissions estimations. Also from CDP5 onwards, the information requests have directed companies to the GHG Protocol as the methodology to be adopted for reporting GHG emissions (Carbon Disclosure Project, 2007).

Although the CDP is funded by a variety of organisations such as AXA, Merrill Lynch, Pictet Asset Management, PricewaterhouseCoopers, Standard Chartered, Environmental Protection Agency (US), DOEN Foundation (Netherlands), Esmée Fairbairn Foundation (UK), Oak Foundation (Switzerland), Nathan Cummings Foundation (USA) and the World Wildlife Fund (WWF) (UK, Germany and India) it maintains that it is independent and not-for-profit. This is a position that, although commonplace, is nonetheless problematic. Beder (1997, p.77) has argued that because organisations like CDP "are funded by multiple donors they can claim independence from 'particular' vested interests" but this kind of 'corporate activism' is, according to

Beder (1997, p.15), set up to “reshape public opinion and persuade politicians against increased environmental regulation”. In other words, the claim to independence should not be taken for granted just because there are diverse financial interests.

There is no clear way to determine a correlation between the funding of organisations such as the CDP and overt bias. However, it is important to continue to question the legitimacy of such claims to independence. Even from a discursive point of view, the CDP could never be truly independent as it is deeply rooted in the values of free market capitalism and its resource allocation challenges – with an additional environmental hurdle that needs to be factored into the current market fundamentals. As noted by Sadler and Lloyd (2009, p.621), one of the key problems with the reliance on a market-based solution is “the investment community’s innate short-termism”, which is at odds with time frame required for genuine environmental change.

There is no doubt that the CDP will influence emerging mandatory and self regulatory regimes because the repository is a source of significant information that can be used by policymakers, educators, academics, investors and creditors. Its size and scale make it influential, but its influence goes beyond a simple description of ‘carbon performance’ to enable allocation decisions, it will help to set the agenda “deciding not only what will be discussed but also what won’t be” (Beder, 1997, p.240). It positions a marginal variation of the free market as an appropriate location for the kind of environmentalism required to mitigate climate change. This kind of ‘green capitalism’ appears natural and self evident and is in part a result of “neoliberal ventures” that have “increasingly assimilated environmentalism through key

discursive shifts, such as the growing convergence of sustainable development with green capitalism” (McCarthy & Prudham, 2004, p.279).

It is undeniable that data gathered on this scale makes a significant contribution to the climate change discussion, but the data itself must be examined for quality and usefulness and interpreted with consideration of the context in which it is produced. The CDP is the only organisation that collects carbon related data from firms across the globe directly from the companies themselves and given that it is still the largest repository of greenhouse gas data and it is internationally significant and influential. Given that the CDP provides some methodological guidance to firms responding to their information requests, it is important to consider these underlying methodologies and the influence they have on the type of data produced. As noted, the CDP information requests direct respondents to the GHG Protocol as the preferred methodology for measuring and reporting emissions, so we will now consider the origins and development of the Protocol.

4. The Greenhouse Gas Protocol

“As with financial accounting and reporting, generally accepting GHG accounting principles are intended to underpin and guide GHG accounting and reporting to ensure that the reporting information represents a faithful, true, and fair account of a company’s GHG emissions” (World Business Council for Sustainable Development/World Resources Institute, 2004, p.6).

The GHG Protocol Initiative was convened by the World Resources Institute and the World Business Council for Sustainable Development³ in 1998 with a mission to

³ According to Beder (1997) the Business Council for Sustainable Development was set up to position business interests at the Earth Summit in 1992. Beder (1997, p.111) outlines the BCSB’s activities at the Earth Summit and the primacy offered business interests in Rio, 1992. She claims that the Council really influenced the Summits outcomes ensuring the Summit supported free trade, avoided greenhouse gas commitments, failed to discuss resource consumption inequities, and avoided any mention of multinational companies let alone control of them.

develop a set of internationally accepted greenhouse gas accounting and reporting standards for business (World Business Council for Sustainable Development/World Resources Institute, 2004, p.2). As previous research has indicated, regulatory standards are influenced heavily by those who participate in their development (see for example Solomons, 1983; Van Riper, 1994; Zeff, 2002; Brown, 2004, 2006; Cortese et al., 2009). The process is often undemocratic, or has the appearance of democracy for the select few who are allowed to participate. The GHG Protocol has developed similarly, with contributors from a variety of backgrounds but with a heavy emphasis on corporate engagement. The GHG Protocol Corporate Standard was released in 2004 after road testing the first edition with structured feedback invited from companies including IKEA, Sony, Seattle City Lights, Eastman Kodak, Nike and Tokyo Gas. The document was then revised in consultation with more constituents from the Australian Greenhouse Gas Office, BP, Environment Canada, Ford, Holcim, International Aluminium Institute, Kansai Electric, KPMG, National Council for Air and Stream Improvement, PriceWaterhouseCoopers, Shell, the Energy Research Institute, the US EPA, and WWF. An advisory team was drawn from KPMG, PriceWaterhouseCoopers, the UN Framework Convention of Climate Change (UNFCCC), US EPA, and the WRI, with one independent expert (World Business Council for Sustainable Development/World Resources Institute, 2004). With such a detailed and controlled process of development, trial and revision, it is evident that the development of 'robust' corporate greenhouse gas standards is a significant priority.

Perhaps the corporate orientation of the GHG Protocol is unsurprising however it is particularly interesting that accounting practitioners have had only limited input. In fact, only two accounting consultancy firms contributed. Although the GHG Protocol

borrowed heavily from generally accepted accounting principles and practices, there appears to be no input from the professional bodies who are the main architects of most accounting standards. It is also noteworthy that accounting academics have not contributed at all. There is no doubt that the process of engagement and those participating in the development of the GHG Protocol will materially influence the development of the protocol. For the Protocol to be meaningful and contribute substantially to climate abatement, it is reasonable to expect that this engagement be as far reaching as possible. However, according to Beder (1997, p.29), this kind of 'in-house' standard development is strategic in that it appears as though there is recognition that "environmental problems that are caused by corporations" but that processes such as the development of the GHG are tightly controlled to "promote superficial solutions that prevent and pre-empt the sorts of changes that are really necessary to solve the problems".

Previous research has also established that the sponsorship of regulatory development can influence the nature of the regulations developed (Van Riper, 1994; Brown, 2004, 2006). The GHG Protocol Initiative is funded by the Alcoa Foundation, British Petroleum, The Energy Foundation (a coalition of philanthropists), The Hewlett Foundation (a private philanthropic endeavour), the Robertson Foundation (a private philanthropic group committed to promoting market based solutions to climate change), the US Environmental Protection Agency, the US Agency for International Development (USAID), and the Wallace Global Fund (a private philanthropic fund). Despite the global influence and public impact of the GHG Protocol, most of the funding has come from private sources, with only the US government contributing through two of its agencies. Sadler and Lloyd (2009, p.613) have argued that this kind

of private regulatory coalition involves the “displacement of core regulatory functions...from the state to the corporate sector”. Emerging frameworks like the GHG Protocol are “voluntaristic and delimit a space outside international regulatory intervention” with a recurrent theme that “left to their own devices, global corporate citizens can evolve” (Sadler & Lloyd, 2009, p.618).

4.1 Qualitative Characteristics of GHG Protocol Accounting Information

“Qualitative characteristics are the attributes that make information provided in financial reports useful to users. The four principal qualitative characteristics are: understandability, relevance, reliability, and comparability” (Ngiam & Shying, 2009).

Similar to financial accounting standards, which are framed around the qualitative characteristics noted above, the GHG Protocol also requires that GHG accounting and reporting be based on principles of relevance, completeness, consistency, transparency, and accuracy (World Business Council for Sustainable Development/World Resources Institute, 2004). When the Protocol’s list of qualitative characteristics is compared with those required by financial accounting frameworks, notably absent is the requirement that information be comparable. Comparability is a key qualitative characteristic of financial accounting information and is considered essential for users of financial statements when evaluating the performance of an entity over time or comparing across different companies. Even so, the GHG Protocol does recognise that comparability of information is one of the principal GHG performance indicators of interest to stakeholders. However, it falls short of requiring that information be presented in a comparable form.

Further, apart from the similar requirement of relevance, none of the GHG Protocol’s qualitative characteristics are consistent with the long-established attributes of financial information. This may be incidental or it may be a strategic way of

differentiating the GHG Protocol's standards from the accounting standards. Based on our previous discussion and the level of care taken over the production of the GHG Protocol – the failure to include comparability is not an oversight. It may be a subtle way of lowering the expectations of investors and decision makers whilst providing a safety net to the companies providing CDP information. It is also possible that it is a judicious recognition that GHG data simply cannot, as yet, satisfy the requirements such as comparability, reliability, and understandability. The carbon “industry” is booming and the entire sector is inherently unstable and evolving. As the provision of carbon related information is new, it is quite reasonable that the information produced under the GHG Protocol would not yet meet the long-standing financial accounting requirements of understandability, reliability, and comparability. However, their absence within the protocol is significant and raises questions about the value of the information to decision makers and the broader purpose of disclosures that are based on its framework. According to Southworth (2009, p.334) these “projects lend some degree of credibility to corporate voluntary reporting of emissions...and add some degree of regularity” however “external verification and auditing of data remains inconsistent” and “firms have chosen to report some emissions while excluding others”. This ultimately undermines the comparability of the data, making the claims that CDP data will enable more carbon sensitive investment decisions appear weak. Perhaps this will emerge as the information conforms more to one standard, but at this stage the CDP is producing vast quantities of information but the quality, usefulness and comparability of that information falls well short of its stated aspirations. According to Lohmann's (2009, p.529) discussion of carbon accounting, the underlying techniques “to a certain extent use the public's distance from its centres of calculation to ‘black box’ areas of measurement controversy, and thus maintain some

public faith in the abstract idea of computability...the more intimately acquainted people become with the relevant accounting practice, the less plausible and more contested they become”.

4.2 Diverse Reporting Methodologies

Adding to these apparent challenges is the vast number of different carbon reporting methodologies that are actually adopted when producing information for the CDP. While the CDP directs respondents to the GHG Protocol as a methodology for reporting GHG emissions, it does not require its use. Therefore, in addition to the GHG Protocol, there are many other regimes that corporations may adopt when reporting on their carbon impacts. The problems associated with this kind of methodological diversity is noted by Pearson et al.’s (2009, p.490) research into the outcomes of reporting standards when they found that “the consequences of applying different protocols for reportable carbon was significant”.

For the energy sector, a popular choice is the guidelines produced jointly by the International Petroleum Industry Environmental Conservation Association (IPIECA) and the American Petroleum Institute (API).⁴ The IPIECA/API guidelines are an industry initiative intended to provide a voluntary reference to assist companies when reporting on their environmental, health and safety, and social and economic performance (American Petroleum Institute, 2009). Since its development in 2001, the framework has been widely adopted by oil and gas industry participants,

⁴ The IPIECA was established in 1974 following the establishment of the United Nations Environment Programme (UNEP). It represents both upstream and downstream aspects of the oil and gas industry and aims to develop cost-effective, practical, and socially and economically acceptable solutions to issues pertaining to the oil and gas industry (IPIECA, 2010). The API is a national trade association with approximately 400 members that represents all aspects of America’s oil and natural gas industry (API, 2010).

particularly those in the United States. In Canada, oil and gas companies are offered guidance in methodologies prescribed by the Canadian Association of Petroleum Producers, an industry association representing companies engaged in the upstream segment of the petroleum industry (Canadian Association of Petroleum Producers, 2010). At the state level, many countries have developed national legislation and/or voluntary guidelines which can be used alone or in conjunction with the GHG Protocol for carbon disclosures. The Australian Government, has introduced the National Greenhouse and Energy Reporting (NGER) Act, which provides a national framework to guide companies' reporting and dissemination of information about greenhouse gas emissions, greenhouse gas projects, and energy use and production of corporations (Department of Climate Change, 2010). The European Union has prescribed reporting guidelines in accordance with its Emissions Trading System, and Japan's Ministry for the Environment has also established a national manual for reporting greenhouse gas emissions. While most of these industry- and state-based regulatory regimes draw on the GHG Protocol requirements, many have been adapted to meet the specific needs and/or geographic position of the reporting constituents.

In essence, CDP data is the result of various interpretations of various frameworks that don't need to be comparable, nor do they need to be verified. This does not mean the information is redundant, however it does mean that any assessment of its quality and usefulness should keep in mind the context in which it was created.

5. Reporting carbon emissions

5.1 The Data

In order to explore some of the issues we have raised we have chosen to look at the data collected in CDP5 (2007), CDP6 (2008) and CDP7 (2009). As noted, from

CDP5 companies were required to indicate the methodologies used to estimate and account for GHG emissions. Prior to this, firms were not required to expose the assumptions or practices adopted to arrive at the greenhouse gas figures they disclosed. The data produced by the global energy sector is examined because it is recognised by the CDP as a “carbon-intensive sector”. Focussing on a particular sector also overcomes the difficulties associated with variation of disclosure practices and strategies across industries.

Across the three information requests, 387 companies were asked to provide GHG information. Some of these companies responded to all three CDP requests, some companies to one or two or none of the requests. As shown in Table 1, there were a total of 215 responses to the CDP5, CDP6, and CDP7 requests for data. To avoid double counting across the information requests, individual companies were only counted once if they responded to one or more of the CDP’s, leaving 104 respondent companies to be studied. The geographic breakdown of respondents is presented in Table 2.

Insert Table 1

Insert Table 2

As shown in Table 2, the majority of respondents were companies from the United States (US) (34 percent), followed by companies from Canada (21 percent) and Europe (18 percent).

5.2 The Underlying Methodology

Of interest is the methodology adopted by reporting companies to calculate and disclose greenhouse gas emissions. As noted, to improve the quality of responses and standardise reporting, the CDP questionnaires direct respondents to the GHG Protocol to be used as the methodology for disclosing carbon emissions, however companies may elect to use other reporting regimes or a combination of frameworks (Carbon Disclosures Project, 2007). Table 3 presents a summary of the methodologies adopted by responding companies.

Insert Table 3

The data presented in Table 3 shows that, contrary to the CDP questionnaire directions, companies have used a variety of methods, industry schemes, and/or national legislation to guide their reporting. Often, methodologies were combined by reporting entities so that, for example, national legislation was complied with as well as the GHG Protocol. This is consistent with the fact that “climate change policy has taken place in a fairly disorderly way in which many different interests groups, but most notably MNCs, have tried to influence their exact shape” (Kolk & Pinske, 2009, p.423)

It is important to remember that the data resulting from the CDP information requests is supposed to assist institutional investors when making decisions about resource allocation by including firms’ greenhouse gas position along side other financial information that is already in the public domain. In contrast to financial information, which has long been used to make economic decisions, this information is very new

to most people making investment decisions, and it is very new to broader user groups who may be interested in this type of information generally. In fact, not much is known about the use of this information in investment decisions and Pfeifer and Sullivan (2008, p.257) reported that limited attention is being paid “to the manner in which their investment managers take account of climate change in investment decision making”.

It is logical to assume that the usefulness of the information for investment decision making rests heavily on the capacity of a user to evaluate it and compare performance. However, the voluntary nature of the reporting environment means that companies may use the prescribed guidelines or, as in many cases, they can elect to follow a different regulatory regime which better suits the reporting entity or the output sought. Even if all reporting companies used the GHG Protocol, because the Protocol was established without the requirement of comparable reporting, information produced cannot be assumed to possess this characteristic. Further, the requirement that GHG information be subject to independent verification and audit is completely absent from the GHG Protocol and the CDP information requests. This challenges the usefulness of data produced by the CDP. In the same way accounting standards provide great scope for judgement, the GHG Protocol and other regulatory regimes provide options for the reporting firm.

As the CDP and GHG Protocol stand at present, they are voluntary regimes developed outside the influence of democratically elected governments (Andrew & Cortese, 2008). They are largely the work of corporations, consultant accountants and global nongovernmental organisations with a vested interest in the environment. It is

important to acknowledge that the dominance of one approach over another has real consequences. Decisions will be made on the basis of this information and the selected approach will have an influence on the development of mandatory guidelines in the future. It provides clear boundaries around which future discussion can emerge and establishes a GHG accounting mainstream that may be useful, but may also be limited, partial and serve interests that have little to do with climate abatement (Beder, 1997; Bebbington et al, 2007). This is undeniably strategic, and it is no accident that the GHG Protocol is emerging as one of the most visible regulatory standards. Theoretically, this could be described as the discursive mainstream and such discursive dominance relegates alternatives to the margins. At this stage of regulatory development, it is still possible to destabilise this mainstream if it proves to be a distraction from the environmental goals that underpin its purpose.

6. Conclusion

CSR has become an intrinsic component of political projects which are closely associated with a redrawing of what are seen as appropriate forms of market and state intervention (Sadler and Lloyd, 2009, p.621).

In order to engage with the accounting issues that have emerged from the climate crisis, we have argued that the process must be part of a critical dialogic process as suggested by Bebbington et al. (2007). Emerging greenhouse gas accounting that relies unquestioningly on the fundamentals of neoclassical economics and the pursuit of the unchallenged goals of capitalism must be considered in the context of a global environmental crisis. In order to explore this, we have used the work of Sharon Beder to help us challenge developing environmental policies that rely on the false logic that the market will enable a democratic solution to emerge through an informed investing public. Beder's work provides a theoretical framework through which we have argued the environment should not be an adjunct to production, but should be central to

future climate change policy. Facilitating the decisions of responsible investors will not necessarily enable a democratic renegotiation of our relationship with the environment; instead we argue that it can help legitimise the market as an appropriate forum through which to solve global environmental challenges. Although our work does not condemn the market, we argue that new mechanisms such as the CDP and the GHG Protocol are intimately entwined with the market, and that non elected global governance institutions such as these may do little to abate climate change and do more to solidify the centrality of capital accumulation as an inalienable, albeit slightly amended, human right.

We have shown how the emerging carbon disclosures of companies engaged in the global energy sector have produced little on which to formulate investment decisions, let alone climate policy. The well established legitimacy of financial accounting information has been co-opted to some extent by the GHG Protocol in order to infer a similar legitimacy to GHG disclosures. However, as this paper points out, significant attributes of financial accounting information have been ignored, notably the requirement for information to be comparable, understandable, and reliable. Given that the CDP and GHG Protocol aim to provide information to improve decision making for users, it is difficult to argue that the information facilitated under these programs is substantial enough to meet these aims.

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Tables

Table 1: Responses to CDP Information Requests

	CDP5-2007	CDP6-2008	CDP7-2009	Total
Number of requests made	92	208	87	387
Number of responses provided	68	78	69	215
Response rate	74%	38%	79%	56%

Table 2: Geographic location of respondents to CDP Information Requests

Country/Region	Number of respondent companies
Africa	1
Asia	11
Australia & New Zealand	7
Canada	22
Europe	19
United Kingdom	9
United States	35
TOTAL	104

Table 3: Methodology adopted, by region

Country/Region	GHG Protocol ¹	IPIECA/API Guidelines ²	GHG Protocol & IPIECA/API Guidelines	National legislation & Other Regulatory Schemes	ETS & ISO Guidelines ³	CAPP Guidelines ⁴	Total
Africa	1						1
Asia	6	1	1	3			11
Australia & New Zealand	5	2					7
Canada	4		3	4		11	22
Europe	9	1	2	3	4		19
United Kingdom	1	2	2	3	1		9
United States	13	5	7	10			35
Total	39	11	15	23	5	11	104

1. Greenhouse Gas Protocol

2. IPIECA/API Oil and Gas Industry Guidance on Sustainability Reporting

3. EU ETS Guidelines and International Organisation for Standardisation Guidelines

4. Canadian Association of Petroleum Producers Guidelines

