

# CDP Supply Chain Report 2012

A New Era: Supplier Management in the Low-Carbon Economy



Report written for  
Carbon Disclosure Project by:

**accenture**

High performance. Delivered.

Carbon Disclosure Project  
[info@cdproject.net](mailto:info@cdproject.net)  
+44 (0) 20 7970 5660  
[www.cdproject.net](http://www.cdproject.net)

## CDP Supply Chain Member Companies

### CDP Supply Chain Program

The CDP Supply Chain Program is designed to promote information sharing and innovation between CDP Supply Chain members – companies that have begun to integrate carbon management strategy into their supply chains – and the companies that provide goods and services to them as we transition to a low-carbon economy. To learn more about becoming a member, please contact us or visit the Members and Signatories section of [www.cdproject.net](http://www.cdproject.net).

### Lead Members

Bank of America  
Coca-Cola Company  
Dell  
FIBRIA Celulose  
Goldman Sachs Group  
Juniper Networks  
L’Oreal  
PepsiCo  
Suzano Pulp and Paper  
VALE  
Walmart

### Corporate Members

Accenture  
Acer Inc.  
ASUSTeK Computer  
AT&T Inc.  
Banco Bradesco  
British Sky Broadcasting  
BT Group  
City of Denver  
Colgate-Palmolive Company  
ConAgra Foods  
EADS  
Eaton Corporation  
Eletropaulo Metropolitana  
Elettricidade de São Paulo  
Elopak  
Endesa  
Enel  
eni  
Ford Motor Company  
Imperial Tobacco Group  
IBM  
Jaguar Land Rover  
Johnson & Johnson  
Johnson Controls  
KAO Corporation  
Kraft Foods  
National Australia Bank  
National Grid  
Nestle  
Nokia-Siemens Networks  
Oil & Natural Gas  
Philips Electronics  
Reckitt Benckiser  
Rexam  
Royal Mail Group  
SABESP  
Starwood Hotels & Resorts  
Tyco International  
Unilever  
Vodafone Group

# Executive Summary

Climate change has become a mainstream business issue, and large global corporations are now extending their gains in internal carbon management to the next opportunity: their supply chain. Carbon Disclosure Project (CDP) has been collecting data on corporate greenhouse-gas (GHG) emissions for almost a decade. Global companies that have been exposed to these information requests for many years understand the value of measuring and reporting their emissions, and they are now pushing their suppliers to report more climate change-related information and take greater action to reduce their emissions. This represents a much larger opportunity: indirect emissions (meaning those from the supply chain) represent as much as 86% of a company's total emissions.<sup>1</sup>

In 2011, CDP conducted its fourth annual information request for member companies and their suppliers, and describes its findings in this report, published in collaboration with Accenture.\* The results indicate that companies are making real changes to their operating models, most frequently in procurement, resulting in greater reductions in greenhouse-gas emissions and greater monetary gains across the entire supply chain. Of the 49 CDP Supply Chain member companies—the companies who are requesting climate information from their suppliers—90% of responding companies have a climate change strategy with at least general guidelines for procurement, an increase from 79% in 2010 and 74% in 2009. Some 62% reward suppliers that employ

good carbon-management practices (up from 19% in 2009 and 28% in 2010), 39% will soon begin deselecting suppliers that do not adopt such measures (compared to 17% in 2009 and 23% in 2010), and 30% factor climate change into their evaluation of suppliers. These have all increased significantly over prior years, which shows growing momentum for supply-chain engagement. Monetization of these efforts remains a significant challenge: only 20% of responding companies report an estimated monetary value for the supply chain initiatives they have undertaken to improve carbon management.

The results also indicate that suppliers are becoming more transparent about their emissions-related information, in part due to growing pressure from corporate clients. In 2011, 1,864 suppliers responded to the information request, a substantial increase from prior years (1,000 in 2010, and 715 in 2009). This parallels the way that sustainability measures have become more prevalent in the business community at large. Over the past decade, major global corporations have increasingly taken steps to address climate change, partly in response to greater awareness of climate change among investors and consumers. Now, suppliers are realizing the business value for emissions information due to growing requests for such information among their corporate clients.

The business case is strong and growing: suppliers that do not measure, quantify, and manage their greenhouse-gas

emissions will soon see their business move to competitors that can provide better information and clearer evidence of change. At the same time, while disclosure is strong among global suppliers—67% of suppliers that responded to the information request report scope 1 and scope 2 emissions—these companies must build on this foundation of communication and begin taking meaningful actions to reduce their emissions. While 43% of CDP Supply Chain member companies have achieved reductions in their GHG emissions, only 28% of their suppliers have.

Finally, the survey results indicate ways in which corporations can serve as a catalyst for these changes among their suppliers, working to engender sound carbon-management practices among their suppliers. While the opportunity is clear, the precise means of capturing these gains are not. Some 39% of companies have realized monetary savings from their own emissions reductions activities and over a third (34.5%) have benefited from new revenue streams or financial savings as a result of their suppliers' carbon reduction activities. However, less than a quarter (24%) help their suppliers to quantify the return on their low-carbon investments. The next step is to more effectively evaluate suppliers, improve performance through more effective procurement, and improve the tools and metrics used to quantify and monetize the gains from emissions reductions. Executed correctly, supply-chain engagement will not simply generate benefits for the environment but for the balance sheet as well.

\* All percentages listed as a percentage of companies able to provide information on this subject. The number of member companies responding ranged from 29 - 49.

1 Reference: Mathews, H S., C.T. Hendrickson, C.L. Weber. (2008). The importance of carbon footprint estimation boundaries. *Environmental Science and Technology*, 42, 5839-5842.

# Contents

|                                                                                                  |           |
|--------------------------------------------------------------------------------------------------|-----------|
| CDP Supply Chain Member Companies                                                                | i         |
| Executive Summary                                                                                | ii        |
| <b>Introduction</b>                                                                              | <b>1</b>  |
| Perspective—Supply Chains and the Sustainability Imperative                                      | 2         |
| <b>About the CDP Supply Chain Report</b>                                                         | <b>3</b>  |
| <b>1 A Changing Business Model</b>                                                               | <b>4</b>  |
| Perspective—GHG Protocol Scope 3 Standard:<br>A Framework for Sustainable Value Chain Management | 8         |
| <b>2 Supplier Performance</b>                                                                    | <b>9</b>  |
| Perspective—The Commercial Value<br>of Carbon Disclosure: Standard Register                      | 11        |
| <b>3 The Next Challenge</b>                                                                      | <b>12</b> |
| Perspective—Uncharted Territory: Water in the Supply Chain                                       | 14        |

# Introduction

As climate change begins to exert a larger impact on business operations, reporting on greenhouse-gas emissions has become standard practice in the world's major corporations. The mission of Carbon Disclosure Project (CDP) is to accelerate solutions to climate change and water management by putting relevant information at the heart of business, policy and investment decisions.

As part of this mission, CDP conducts annual surveys among large global corporations. In response to a CDP-facilitated request from 551 institutional investors with \$71 trillion in assets, 81% of the corporations that comprise the Global 500<sup>2</sup> reported climate-change

actions and related strategies via CDP's database in 2011. Year-over-year results point to clear progress among these companies. Among these responding companies, 93% now report their greenhouse-gas emissions, and 74% have targets in place to reduce those emissions. Boards of directors and senior executives are increasingly involved in this process, helping drive company-wide innovation and emissions reductions.

While large, global corporations are doing well, members of CDP's Supply Chain program are taking the next step. These 50 organizations, listed at the beginning of this report, collaborate directly with CDP in order to gather

emissions-related information from their suppliers. CDP Supply Chain member companies have evolved beyond reporting; 94% of them have incorporated climate change into their company-wide risk management process. In addition, 90% now have a formal approach to climate change in procurement, up from 79% in 2010 (Figure 1). Leading companies are also taking direct action to improve their carbon management: 43% of CDP's Supply Chain members report absolute scope 1 and 2 emissions reductions, and 39% reported monetary savings from emissions reduction initiatives.

While this progress is noteworthy—more large corporations have an overall strategy in place to address climate change—their suppliers are still catching up. Only 28% of suppliers reported demonstrable emissions reductions in 2011.

**Figure 1 – Proportion of members with a climate change risk management strategy and upward trend of climate change strategies that include procurement.**

Climate Change Risk Management Approach of Member Companies in 2011



- Integrated into multi-disciplinary company-wide risk management process
- Specific climate change risk management process
- No documented processes

Member Companies in 2011 with Climate Change Strategies that Include Procurement



- Has corporate climate change strategy with some general guidelines for procurement
- Has corporate climate change strategy that specifically addresses procurement

To evaluate the current state of progress on such measures across the supply chain, CDP conducted an information request on behalf of its 50 member companies (please see "About the CDP Supply Chain program"). The results\* show that progressive companies are uncovering significant opportunities to reduce emissions throughout their supply chains, leading to reduced risks of climate change-related disruptions, lower costs, and new business opportunities.

\* All percentages listed as a percentage of companies able to provide information on this subject. The number of member companies responding ranged from 29 - 49.

<sup>2</sup> The Global 500 are the largest companies by market capitalization included in the FTSE Global Equity Index Series

Most commonly this collaboration happens through procurement: 62% of members now reward suppliers who employ strong environmental practices, up dramatically from 28% in 2010 and 19% in 2009.

At the same time, suppliers are becoming more transparent about their emissions and related mitigation strategies, indicating that they now recognize the growing business case for disclosure and collaboration. While disclosure scores among suppliers show improvement, performance scores still trail, indicating that these companies must now transition from communication to taking specific steps to drive emissions reductions. Among specific sectors, utilities scored better than suppliers in other sectors, perhaps due to the more regulated state of the utility industry. Regionally, the disclosure and performance scores of Asian-based and European-based companies exceed the scores of companies from North America and the rest of the world. Suppliers in Asia and Europe have more comprehensive climate change strategies in place —and have generated better results—than their competitors in North America or the rest of the world.

Finally, the results point to several clear avenues that corporations can pursue to further their supply-chain efforts, including better ways to evaluate suppliers, more effective procurement strategies, and improved measurement tools to quantify gains.

## Supply Chains and the Sustainability Imperative

The financial credit crunch that has spawned the global financial crisis is the most profound economic shock in over a generation. Economists have to turn back to the 1971-73 period to find a parallel that produced anything like this degree of change. However, the world is also facing an environmental credit crunch, the effects of which are starting to become apparent.

Credit is simply a means by which we use tomorrow's standard of living to enhance today's standard of living. To buy a television on credit means owning a television today (a higher standard of living), while accepting a lower standard of living tomorrow (as the debt is repaid). Environmental credit is the same concept — burning a barrel of oil to heat a home today means that the consumers deny themselves the ability to burn that barrel of oil to heat their home tomorrow — an inter-temporal transfer of environmentally-determined living standards.

A credit crunch is simply when that inter-temporal transfer is made more difficult (or *in extremis*, impossible). The price movements of basic materials and energy today indicate just such an environmental credit crunch. We have just had the worst global recession in seventy five years, and oil trades at more than \$100 per barrel. For the first time in modern history, resource constraints act as a brake on economic activity. One third of all economic activity today depends on the consumption of nonrenewable resources — akin to financing a third of one's household budget on credit cards.

These twin credit crunches — financial and environmental — influence one another. The solution to an environmental credit crunch is simple: we need to do more with less. Achieving that efficiency requires better investment in capital and education, which in turn requires funding for that investment. However, the financial credit crunch limits the availability of funding at exactly the time it is most needed. Similarly the political concerns about the constraints imposed by an environmental credit crunch may induce governments to direct financing toward certain industries (agriculture, for instance), denying capital to other sectors of the economy and compounding the impact of financial credit crunch.

Amidst all of this sit supply chains — stretched across the world, vulnerable to disruption, and representing the economic and trading structures of what is almost certainly a bygone age. Certain issues, including trade protectionism, limits on capital flows (such as foreign direct investment or trade finance), regulation and politics all render existing supply chains vulnerable. However, the environmental credit crunch factors in as well. Transport expenses and power costs change the economics of lengthy supply chains. However, shifts in environmental conditions also make supply chains more important (importing food into water deprived areas, for example).

The two credit crunches mean changes for the way we supply our economies today. What those changes are, precisely, we cannot know — because we still do not know the extent of the twin credit crunches. What should be clear for policy makers is that to concentrate on the financial credit crunch in isolation is a highly risky strategy. The environmental credit crunch has the potential to be at least as economically damaging. This logic also extends to business. The future trend level of economic growth will depend on our ability to innovate and become more environmentally efficient. It is clear that we are standing at the brink of a new era.

**Paul Donovan, global economist at UBS and the co-author of *From Red to Green: How the Financial Credit Crunch Could Bankrupt the Environment***



## About the CDP Supply Chain Report

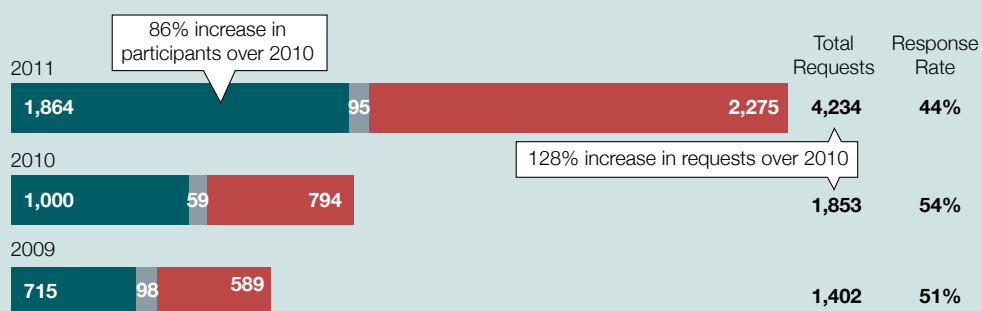
The CDP Supply Chain program provides a global system that allows companies with vast supply networks to collect business-critical climate change information from their suppliers. The program currently has 50 members (including one US city), of which the majority are located in North America (20) or Europe (19). In 2011, CDP collaborated with these members to gather information on greenhouse gas (GHG) emissions from 4,234

of their collective suppliers. 1,864 global suppliers cooperated with this information request, a 44% response rate. While that rate was slightly lower than in past years (54% in 2010), the questionnaires were sent to far more companies, leading to a more comprehensive picture of supply-chain emissions among members. In addition, response rates in Europe and Asia outpaced the rate for suppliers in North America and other regions (Figures 2 and 3).

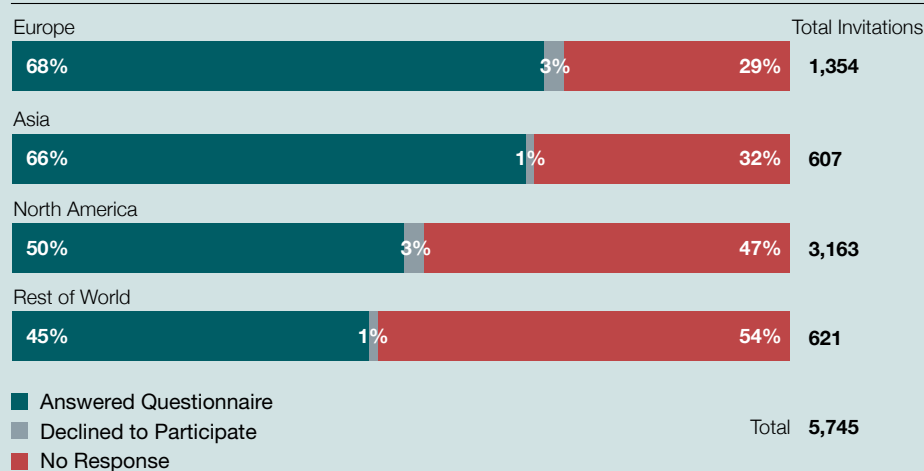
In addition, CDP and Accenture conducted an in-depth formal survey of member companies to better assess the current state of supplier engagement on climate change. The number of member companies responding to each question varied from 29 to 49, depending on their ability to provide information. Therefore, percentages stated relate to the number of member companies who answered each question. Finally, select members were interviewed to draw additional qualitative insights. A team of experts extensively analyzed all of these sources and conducted supporting outside research to produce this report.

**Figure 2 – Supplier participation in CDP Information Request**

Note: A total of 5,745 invitations were sent out to 4,234 suppliers. In many cases, a given supplier received more than one request from CDP Supply Chain members to participate. In these cases, suppliers only responded one time and their response was then distributed to their multiple customers—reducing redundant work for the suppliers.



**Figure 3 – Supplier response rate by region.**



### Scoring Methodology<sup>3</sup>

All responses to the 2011 supplier information request were scored on two factors: 1) transparency, in the form of a numeric disclosure score and 2) action on climate change, in the form of a letter grade performance band. Last year, in recognition of a promising trend in improved transparency among large public companies, CDP introduced a performance component to its scoring system to recognize companies that are taking action on climate change. This year, the same performance scoring was introduced to the CDP Supply Chain program and all suppliers with a sufficiently high disclosure score ( $\geq 50$ ) also received a performance band. Disclosure scores under 50 do not necessarily indicate poor performance; rather, they indicate insufficient information to evaluate performance. First Carbon Solutions, the CDP Supply Chain scoring partner, performed the scoring evaluations of the suppliers who did not overlap with or were not evaluated in the Investor CDP program in 2011 — a majority of the 1,864 who responded to the request.

<sup>3</sup> For more detailed information, please review the 2011 scoring methodology document available here: <https://www.cdproject.net/Documents/Guidance/CDP-2011-Scoring-Methodology1.1.pdf>

# 1

## A Changing Business Model

“At the end of the day, it’s the responsibility of the buyer to really demand this – if not, it’s not sustainable.”

**Fibria**

“L’Oréal’s CPO and COO have implemented a strategy designed to give buyers the information they need to evaluate suppliers on climate change action in their quarterly business reviews. The solution starts with a scorecard document that is effectively a summary of suppliers’ CDP responses, which the sustainability team puts together with support from CDP. L’Oréal’s plan is to make responding to CDP mandatory for all key suppliers, with emphasis on reporting scope 1 and 2 emissions and a reduction target.”

**L’Oréal**

Global corporations that have succeeded in managing the carbon emissions from their own internal operations are now shifting their business models to drive strategy, innovation and long-term change along the entire value chain. While these efforts started as an experiment in what was broadly termed “greening the supply chain,” they have emerged as a serious business imperative that is critical to the success of global commerce. Why? Because companies are now able to quantify the benefits in financial terms. This has not become commonplace just yet, but as information becomes more available and companies are able to better manage it, these practices will become more prevalent.

To date, the most direct progress has come in the form of more comprehensive procurement strategies. Some 90% of CDP Supply Chain members now include procurement in their formal climate change strategies up from 79% in 2010 and 74% in 2009, and 67% state that they now include carbon management in their overall procurement policy on some level, and another 17% are currently developing such criteria. Similarly, 30% of these companies include carbon management criteria in supplier scorecards.

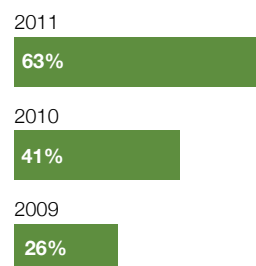
The CDP Supply Chain members also use incentives to encourage their suppliers. In 2011, 62% of respondents reported having a policy that recognizes or rewards suppliers that employ good carbon management practices. That is up significantly from past years (19% in 2009, and 28% in 2010). Some 7% of companies award preferential status to suppliers who show strong sustainability measures, 17% recognize them through external communications such as press releases, and 38% highlight their performance in internal documents.

Other member companies apply more rigid standards: half of responding companies are developing or already have in place a contractual obligation for suppliers to manage greenhouse-gas (GHG) emissions and include information about emissions management in RFPs. Furthermore, many large corporations say they will soon deselect suppliers who fail to implement formal environmental criteria. While only 4% of respondents say that they routinely do this today, 39% project that they will soon implement this policy in the future, up from past survey results (17% in 2009 and 23% in 2010). In addition, 37% of companies are looking to get involved in supplier outreach and training programs.

Accordingly, the number of companies that actively train their procurement staff in supply-chain carbon management is increasing steadily (Figure 4). These do not need to be comprehensive or overly technical—the goal is not to make corporate buyers into carbon experts. Instead, procurement leaders should aim to educate staff about the business benefits of working with climate-savvy suppliers.

**Figure 4 – Companies are increasingly training their procurement staff in carbon management along the supply chain.**

Procurement Staff Training in Supply Chain Carbon Management





These efforts to collaborate with the supply chain and drive greater emissions reductions can lead to benefits in four key areas: reduced risks, lower costs, new revenue opportunities, and better brand positioning (Figure 5).

### Mitigating: Reduced risks and lower costs

In the past year alone, 30% of member companies reported supply-chain disruptions due to weather-related incidents. Climate scientists predict that storms will become more frequent and more intense in the future,<sup>4</sup> leading to potentially greater risks for companies with extended supply chains or agricultural networks (or both).

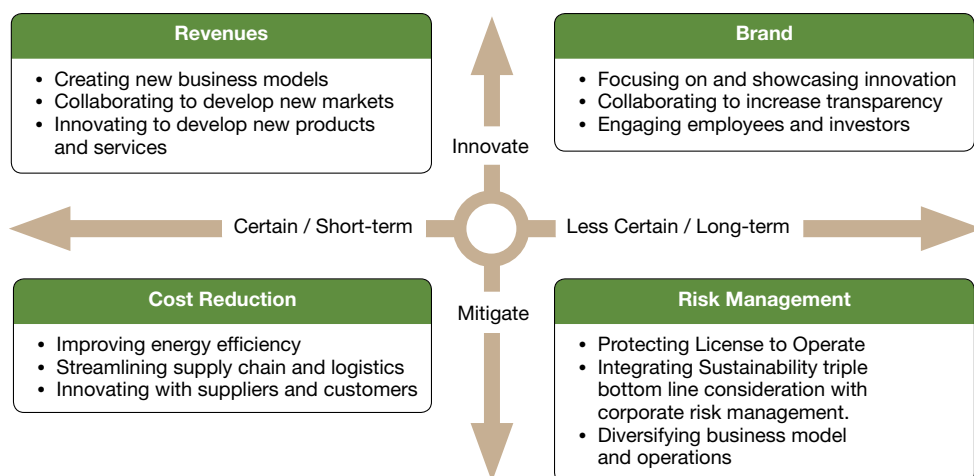
For example, the 2011 floods in Thailand significantly disrupted the personal computer industry. Roughly a quarter of all hard drives come from the region of Thailand that was most impacted by the flood, and the subsequent shortage has triggered price increases of as much as 40%, with effects expected to linger into 2012. One analyst estimated that a 10% rise in the average cost of hard drives would cut Dell's gross margins by 40 basis points.<sup>5</sup>

Supply-chain engagement can help mitigate these risks and also reduce costs throughout the supply chain. A recent Gartner survey found that 56% of companies name the reduction of operational costs as a key supply-chain priority.<sup>6</sup> Reduced supply-chain costs come primarily through energy efficiency measures, but also through collaborative efforts in packaging, logistics, and other functions.

“The worldwide shift to give priority attention to all things climate related, even beyond regulatory requirements, creates ideas for innovations and expanded sales opportunities for Microchip. Thousands of customers are creating new products and new uses for microcontrollers, analog and Flash IP solutions. Customers want devices and technology that can do more things with less power and help them create products that help reduce the emissions of CO<sub>2</sub>e.”

### Microchip Technology

**Figure 5 – Supply-chain engagement leads to new revenue opportunities and better brand positioning, as well as reduced risks and costs.**



4 Pachauri, R.K. and Reisinger, A. (Eds). "Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change;" (2007). Intergovernmental Panel on Climate Change, Geneva, Switzerland. Available at: <http://www.ipcc.ch/index.htm>.  
<http://epa.gov/climatechange/effects/extreme.html>  
5 "Thai Floods an Overhang as Dell Reports Earnings;" Reuters, Nov. 15, 2011; <http://www.reuters.com/article/2011/11/15/thailand-floods-hdd-idUSN1E7AE0BV20111115>.  
6 "Nine Key Supply Chain Sustainability Trends for 2011" (Gartner)

“If we were to allocate emissions to different customers, the challenges would be:

- Lack of specificity of data: manufacturing data is reported at a site level and many of our sites manufacture a range of products across our categories.
- Integration of different management systems: sales and performance reporting.
- Data quality and availability: Scope 1 and 2 is the most accurate and is reported annually. Scope 3 data covering the full lifecycle of our products is of more variable quality in terms of specificity and age.

Also data on many ingredients is not available, and it requires expert judgment to determine GHG footprints across the total lifecycle.”

**Unilever**

#### **Innovating: New revenue opportunities and better brand positioning**

Organizations that generate a comprehensive business approach to climate change will be able to identify and tap new revenue opportunities. Similarly, a company can burnish its brand through more effective environmental practices. Many investors and financial analysts regard good performance on environmental and social measures as a proxy for good management,<sup>7</sup> and companies that excel in this area can differentiate themselves from competitors. In fact, in the 2010 UN Global Compact study, 72% of CEOs cite “brand, trust and reputation” as one of the top three factors driving them to take action around sustainability.<sup>8</sup> Some companies, such as Walmart and Unilever, are cultivating overarching sustainability ‘halos’ that suffuse their product brands.

<sup>7</sup> International Finance Corporation and World Resources Institute (2009). “Undisclosed risk: Corporate environmental and social reporting in emerging Asia.” Available at: <http://www.wri.org/publication/undisclosed-risk-asia>

<sup>8</sup> UN Global Compact-Accenture, “A New Era of Sustainability”: CEO Study 2010, July 2010

### Three success stories

To capitalize on these opportunities, several companies among CDP's members have launched substantial supply chain carbon-management programs. For example, PepsiCo estimates its total potential exposure to ingredients and agriculture from changes in the climate at \$12 billion per year. Accordingly, the company has created several programs to improve resource conservation and crop yields along its supply chain, through more efficient use of water and less reliance on synthetic fertilizers. In southern Chile, for instance, it helped its suppliers upgrade their irrigation systems, leading to a 35% reduction in water use.

Similarly, Walmart established a goal to eliminate 20 million metric tons of GHG emissions from its supply chain by the end of 2015, in large part through collaboration with its suppliers.<sup>9</sup> Walmart estimated that its 60,000 suppliers contributed 72% of the company's total emissions as of 2006.<sup>10</sup> As a result, Walmart has taken steps to identify GHG reduction opportunities in more than 20 product categories, working with CDP in this effort. The company specifically focused on China – setting a goal of becoming 20% more energy efficient, per unit of production, in its top 200 factories. As part of this program, Walmart helped several apparel mills undergo on-site energy assessments. One supplier, Dana Undies, subsequently saved 71% from its annual energy bill by implementing energy efficiency practices identified through the assessment. Another, Intex, reduced coal consumption by nearly 12,000 tons, equal to almost 30 million metric tons of CO<sub>2</sub> emissions. Intex later invested another \$1.2 million into 16 energy-saving projects.<sup>11</sup>

Vodafone is another example—the company assesses its key suppliers every six months on a scorecard that includes six pillars, one of which is focused on sustainability. Vodafone is also working closely with 12 of its major suppliers, which represent 22% of relevant procurement spend, on CO<sub>2</sub>-reduction projects, primarily to develop more energy efficient equipment.<sup>12</sup>

### Overcoming challenges

These companies have managed to overcome several significant challenges to establish their supply-chain leadership. The principal theme among these is quantification—many companies have struggled to determine the best means of allocating the costs and benefits of new measures to individual organizations along the supply chain. For example, suppose that a large food manufacturing company helps its growers reduce their fertilizer use and invest in a more fuel-efficient fleet of trucks. Those changes will clearly lead to emissions reductions, but there is no system in place to determine how such reductions should be reported or accounted for between the supplier and the corporate client. To overcome this, companies need to adapt existing financial evaluation models to accurately assess the results of their efforts to reduce emissions.

A related challenge is determining a clear return on investment for supply chain measures. Some 34.5% of responding member companies claim to have realized new revenue or savings from their suppliers' carbon-reduction activities, but only 24% help suppliers identify those factors in their own organizations. More fundamentally, only 20% of companies report an estimated monetary value for the supply chain initiatives they have undertaken to improve carbon management.

**“We must extend beyond our own operations to promote best practices among our business partners, in order to deliver on our commitment to protect natural resources and mitigate business risks through innovation and more efficient use of land, water, energy, and packaging. PepsiCo will work with our strategic suppliers to ensure effective environmental sustainability programs in their organizations.”**

**PepsiCo**

9 Company website; <http://walmartstores.com/Sustainability/8141.aspx>

10 Company website; [http://www.bsr.org/reports/BSR\\_WBSCC\\_Backgrounder.pdf](http://www.bsr.org/reports/BSR_WBSCC_Backgrounder.pdf)

11 Company website; <http://walmartstores.com/sites/ResponsibilityReport/2011/>

12 Vodafone, 2010/2011 Sustainability Report

## **GHG Protocol Scope 3 Standard: a framework for sustainable value chain management**

Scope 1 and scope 2 reporting has become commonplace: 94% of the responding companies in the Global 500 now report emissions in the former category, and 93% in the latter. Scope 3 reporting, on the other hand, is incomplete and inconsistent: only 72% of the Global 500 current report any scope 3 emissions. But that's about to change. The GHG Protocol Scope 3 Standard has just been published, which clearly defines 15 categories of scope 3 emissions and provides detailed guidance on how to account for and report those emissions.

Companies that aim to be leaders in GHG management will be expected to make a full accounting of their scope 3 emissions. Stakeholders including investors, customers and environmental groups want to know that companies are effectively managing climate-related risks and opportunities from their full value chain. The release of the GHG Protocol Scope 3 Standard has redefined and raised the bar for defining corporate climate leadership.

We expect companies will start reporting scope 3 emissions more completely and consistently to meet a variety of business goals, such as managing risks and opportunities, identifying and reducing impact (both financial and environmental), setting targets and tracking performance, engaging suppliers, and enhancing reputation and stakeholder information through comprehensive public reporting. Some examples of companies using scope 3 data to manage risks and opportunities include substituting GHG-intensive raw materials in purchased goods, developing lighter packaging in sold goods, achieving greater efficiencies in the design of sold products, and developing new low-carbon product offerings.

Ford Motor Company, a global vehicle manufacturer, identified multiple business objectives for measuring its scope 3 emissions, including mitigating its climate-related risks in the supply chain and identifying opportunities for efficiency improvements. Ford determined that it could best manage GHG emissions through direct supplier engagement and collaboration. As a result, Ford reached out to 128 of its key suppliers in 2011 – representing nearly 60% of Ford's \$65 billion in annual purchases – and requested the suppliers' scope 1 and scope 2 emissions data, allocated to Ford's purchases, as well as information about the suppliers' corporate climate strategy; 86% of the suppliers responded.

Kraft Foods, a global food products company, developed a complete scope 3 inventory to understand and evaluate its value chain GHG emissions. In the first year of scope 3 reporting, Kraft Foods used industry-average life cycle inventory data from various public and commercial sources to calculate scope 3 emissions. The company found that scope 3 emissions comprise more than 90% of the company's combined scope 1, scope 2, and scope 3 emissions. Within scope 3, Kraft Foods found that emissions from category 1 (purchased goods and services), including raw materials and its agricultural supply chain, comprised 70% of its total scope 3 emissions. Kraft Foods plans to continuously improve the quality of its GHG inventory. The company's experience highlights the value of using secondary data to identify where to prioritize GHG reduction efforts and target opportunities to collaborate with suppliers in future years to better measure progress and achieve GHG reductions.

**Pankaj Bhatia**  
**Director, GHG Protocol**  
**World Resources Institute**

# 2

## Supplier Performance

A necessary first step to supplier engagement on climate change is that a company's suppliers must be able to measure, quantify, and report their greenhouse-gas emissions. Supplier engagement is on the rise—67% of responding suppliers reported both scope 1 and scope 2 emissions, and CDP saw an 86% increase in number of responses in 2011 compared to 2010 (1,864 from 1,000). However their carbon accounting is not yet at the level of their corporate customers, of whom 98% reported both scope 1 and 2 emissions in 2011. Overall performance among suppliers lags as well: while 43% of the CDP Supply Chain members have achieved reductions in their GHG emissions, only 28% of their suppliers have. This follows an established pattern. Just as large corporations have often developed better environmental practices in response to demand from retail consumers and investors, suppliers are now beginning to improve their own practices in response to demand from corporate clients.

Relative response rates among the suppliers in the CDP supply chain information request demonstrate this. Suppliers who received two or more requests—meaning that they had multiple corporate clients who sought their emissions information—were far more likely to respond. Only 35% of suppliers who received a single request responded, however, over 80% of suppliers with more than one customer request responded. This was especially true regarding Asian suppliers. Among responding suppliers, 45% of Asian companies received two or more requests, while only 37%, 31% and 28% of suppliers from Europe, North America and ROW, respectively, received two or more requests (Figure 6). Asian suppliers, who responded on

par with European suppliers and ahead of North American suppliers in terms of response rates and scores, may be outperforming expectations due to this apparent increase in business demand for emissions-related information.

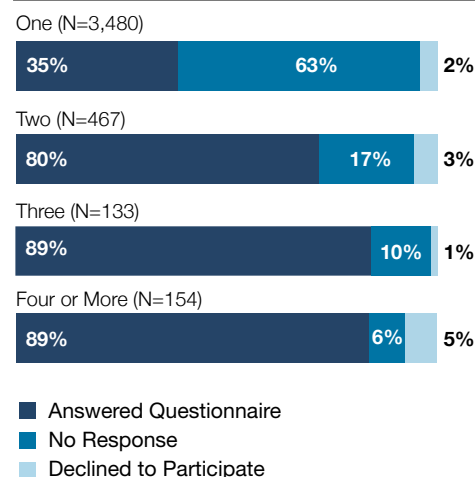
In addition, the supplier scores reveal several interesting trends. First, performance scores trail disclosure scores overall, which is consistent with the broader trend, that reporting on corporate climate strategy and mitigation initiatives is outpacing actual performance. (For details on scoring methodology, please see "About the CDP Supply Chain program.")

Regarding specific sectors, utility companies scored better on both disclosure and performance than companies in other industries, possibly due to the more heavily regulated nature of utilities. Companies in the consumer discretionary sector lag behind those from other sectors on both disclosure and performance.

"Our environmental sustainability commitments are playing an increasingly important role in how we're winning business. A growing number of existing clients and prospects are asking sustainability questions and inquiring about the bank's operations and what it's doing to influence suppliers."

**Bank of America**

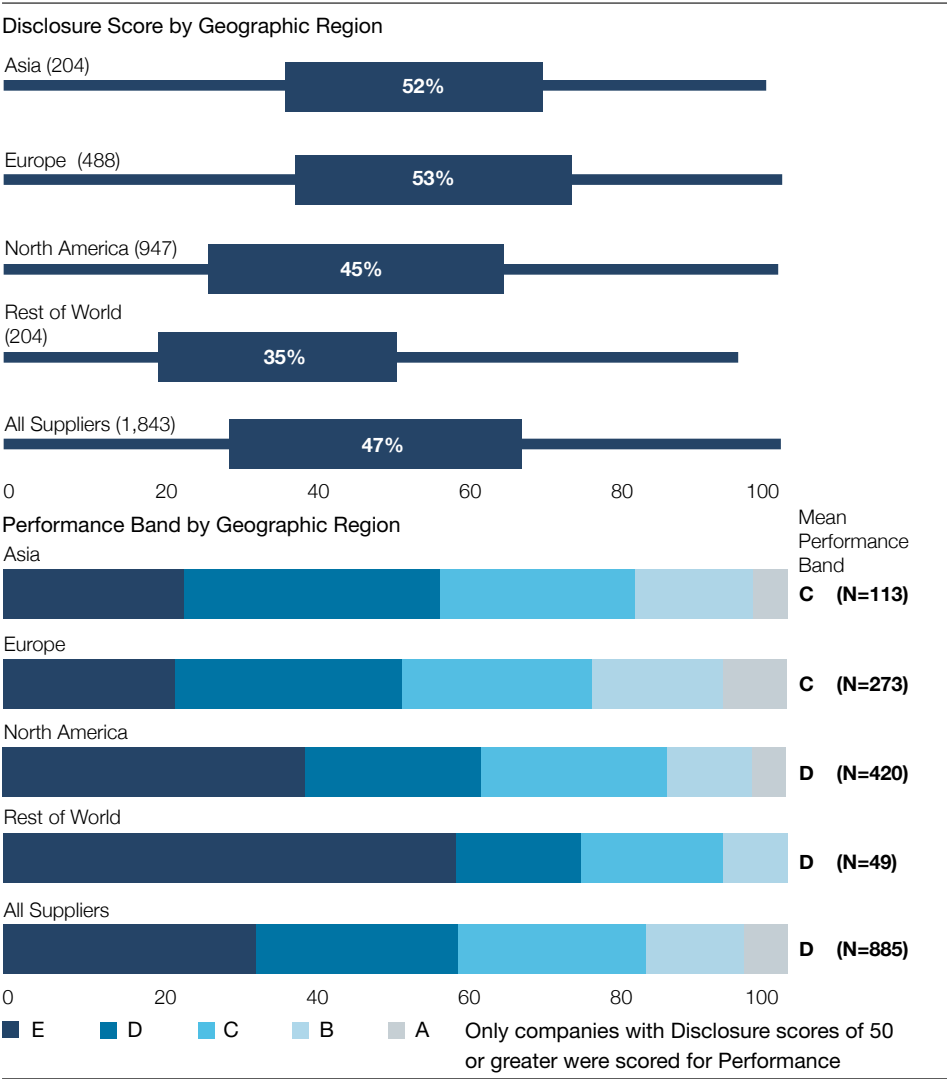
**Figure 6 – Suppliers who received information requests from multiple corporate clients were far more likely to respond.**



Finally, the disclosure and performance scores of Asian-based and European-based companies are comparable, and exceed the scores of companies from North America and the rest of the world (Figure 7). A closer look at the results, focusing on the 905 suppliers to North American Supply Chain members only, shows that suppliers in Asia and Europe are more likely to have comprehensive climate-change strategies in place—and have generated better results—than their competitors in North America or the rest of the world. (Figure 8). These strategies could translate into a competitive advantage for Asian and European suppliers as environmental factors begin to play a greater role in the business world.

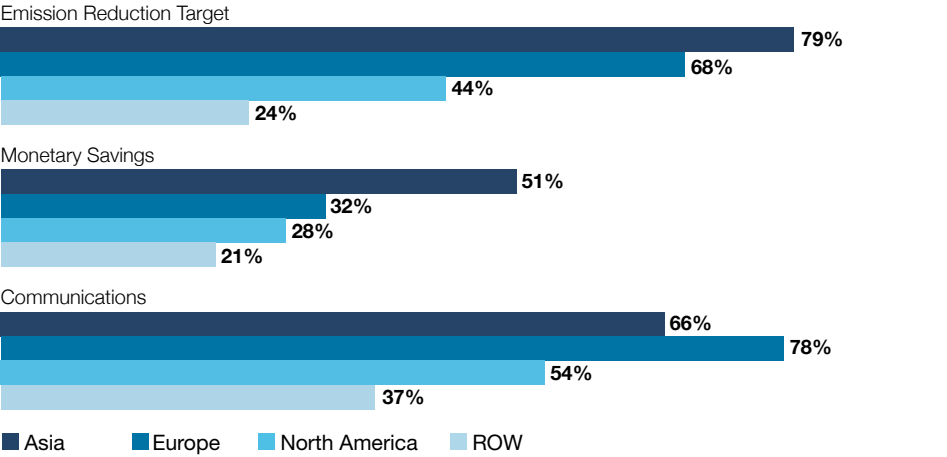
Regarding specific concerns, suppliers overall are increasingly aware of the impact of climate change on their operations. More than half (53%) of respondents expect climate change to lead to increased operational costs, and 74% of those that cited regulation as a risk expect increased costs to impact their business within the next five years (Figures 9 and 10). However only 28% of suppliers reported a reduction in overall emissions in 2011 compared to 43% of their customers.

**Figure 7 – Carbon Disclosure and Performance Scores for companies responding to the 2011 Supplier Information Request.**



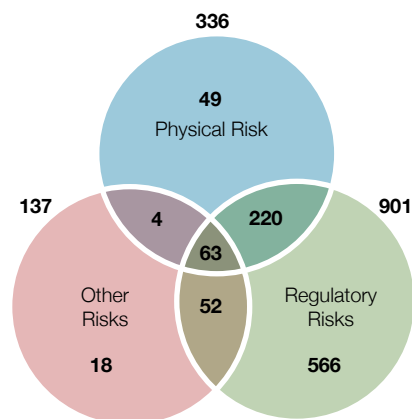
**Figure 8 – A comparison of 905 suppliers to North American members of the Supply Chain program.**

More Asian and European suppliers had emission reduction targets in place, accrued monetary savings through emission reduction initiatives and communicated on their climate change strategy than peers from North America and the Rest of World (ROW).

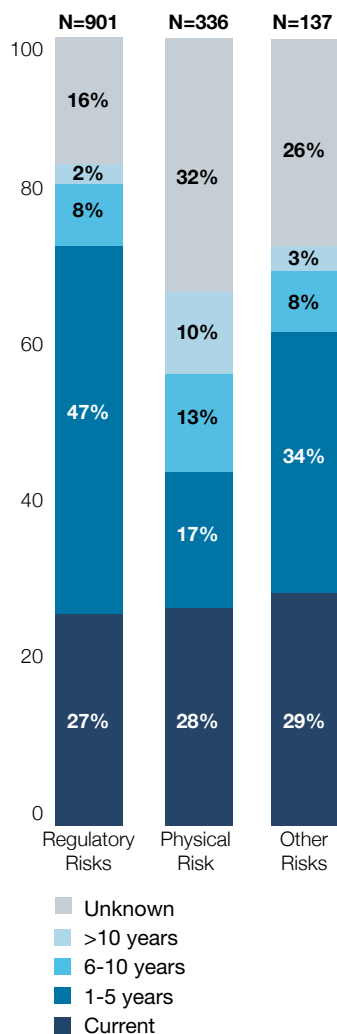




**Figures 9 and 10 – A majority of suppliers expect an increase in operational costs due to climate change within the next five years.**



**Timeframe of increased operational cost**



## Standard Register learns the commercial value of carbon disclosure

Standard Register (NYSE: SR) provides market-specific insights and a portfolio of solutions to address the changing business landscape in commercial, financial, healthcare and industrial markets. It helps companies manage the critical documents and processes they need to effectively run their operations, improve the way they communicate with and serve their customers, employees, and stakeholders, and ultimately thrive in today's competitive climate.

### Challenge: Meeting customer demand

At the request of Bank of America, an important customer, Standard Register reported its climate change data to the Carbon Disclosure Project (CDP) through the CDP Supply Chain program in 2009. Standard Register did not, however, have the necessary processes in place to calculate its carbon footprint and consequently scored just 25 out of 100, well below the supply chain respondents' average that year. Although Standard Register understood the benefits of sustainable business practice, and had operated waste reduction and paper purchasing initiatives since 2007, the company had no way of evaluating the impact or success of its programs. Participating in the CDP Supply Chain program enabled Standard Register to identify the shortfalls and areas for improvement within its sustainable initiatives, thereby creating business opportunities that would help to strengthen its environmental credentials and improve its prospects as a supplier.

### Solution: Improved carbon disclosure score

To improve its 2009 score with CDP Supply Chain, Standard Register used the CDP questionnaire to help devise a strategy to measure and manage carbon emissions. Enhancing the company's ability to track electricity consumption was a key area identified as part of the improved approach to emissions management. Existing outsourcing arrangements were used to collect new electricity consumption data from administrative offices, distribution centers and 25 manufacturing facilities. By the following year, Standard Register improved its score more than threefold and jumped from 25 to 91, placing the company well above the 2010 average score of 48.

### Results: Financial savings, improved sustainability credentials, strengthened position as a supplier

In addition to enabling Standard Register to respond to an important customer's demand, reporting through CDP Supply Chain assisted Standard Register to refine its environmental programs and may give it a strategic advantage in competing for business. Participation in the program has also helped Standard Register identify ways to realize significant energy savings from emissions reduction activities.

Lighting retrofits at Standard Register facilities, saving around \$77,000 annually, will pay back within three years. A digital printing technology upgrade, which removes inefficient printing technology from production, will reduce scope 1 and 2 emissions, result in annual savings of \$4,200,000 and will also pay back within three years.

Steve McDonell, Vice President of Engineering at Standard Register says: "The largest impact or value from the CDP process was the addition of structure and process to our sustainability efforts around greenhouse gas emissions. It forced us to have a very clear idea and comprehensive measurement system in place and, in turn, detailed planning, including goals and objectives for improvements."

Inspired by this greater understanding of greenhouse gas management, Standard Register is now addressing the sustainability of its own supply chain. A subcommittee dedicated to sustainability across the supply chain, from extraction through to delivery to the consumer, has been formed and will help Standard Register to share knowledge and best practice with its suppliers.

# 3

## The Next Challenge

Given these two trends—strong supply chain engagement among a number of environmental leaders, and increased disclosure among suppliers—the next step is to make these practices more widespread. Large corporations can and should serve as a catalyst in these efforts, by motivating suppliers to make climate change a key factor in the way that they operate.

This happens through: 1) more effectively evaluating suppliers; 2) building on a foundation of communication to reduce emissions; and 3) measuring success through better information-management platforms.

### Evaluate suppliers

For companies to understand the full measure of their supply-chain emissions, they must develop a standard, consistent means to evaluate the sustainability efforts of their suppliers (not just carbon emissions).

This is a complex challenge, given that suppliers can have widely different business models, geographic footprints, and other factors that make straight comparisons difficult.

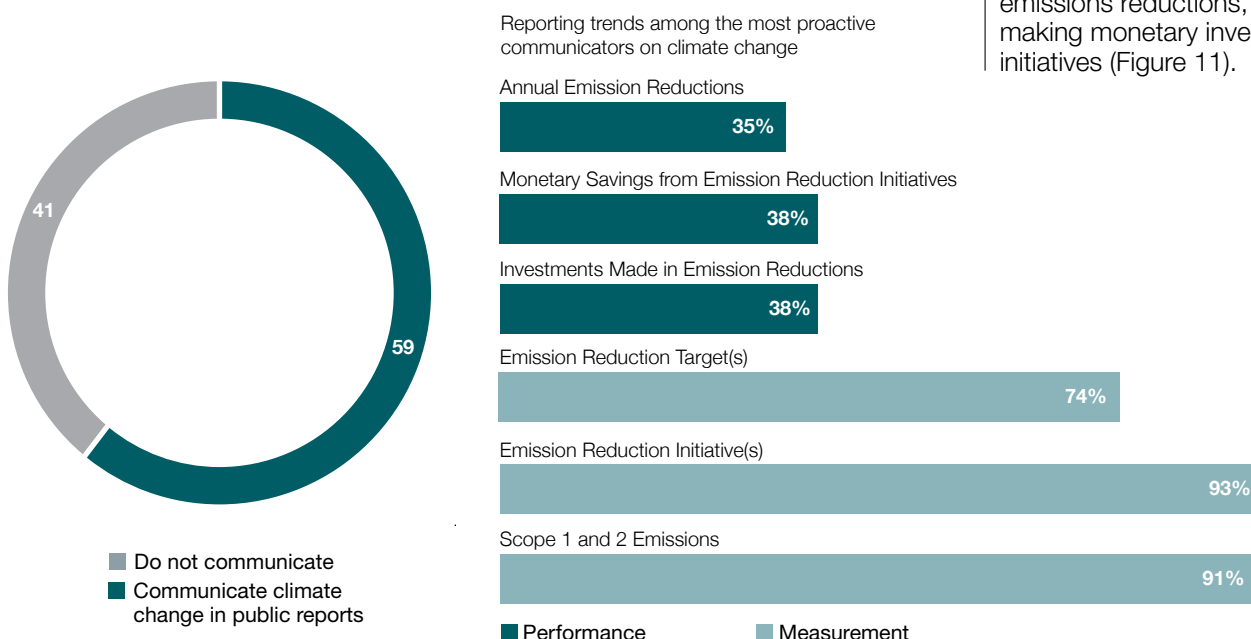
To that end, the CDP Supply Chain program's global reporting platform makes it easy for suppliers to respond—and for corporations to assess their efforts using standard metrics. In addition, CDP provides robust analysis via custom reports and CDP Analytics, an online tool that allows CDP Supply Chain members to quickly understand trends and extract specific details from their suppliers' responses. Suppliers are benchmarked and provided with feedback to encourage future improvement. The platform effectively gives companies a set of reliable numbers, freeing them to focus on identifying opportunities and taking action.

### Build upon communication to drive performance

There is a growing trend among suppliers in reporting on climate change externally, but this reporting does not necessarily correlate with action to reduce emissions. In addition to their CDP responses, about 60% of suppliers (N=1251) also publish information about their climate strategy in annual reports, regulatory filings and other voluntary reporting outlets.<sup>13</sup> Most of the suppliers in this group (91%) have been doing so for more than one year. These suppliers reported having systems in place to understand their emissions by disclosing scope 1 and 2 emissions (91%) and report having reduction initiatives in the works (93%) and are reporting reduction targets (74%).

Yet, when it comes to concrete results on their actions to mitigate climate impact and risk, their overall performance lags behind. Only about one third of these companies report actual performance results from their climate-change initiatives: 35% report year-over-year emissions reductions, 38% report monetary savings from emissions reductions, and 38% reported making monetary investments in these initiatives (Figure 11).

**Figure 11 – Companies have become adept at communicating their carbon management information, but that must lead to improvement.**



Emissions reporting without emissions management is insufficient. To really move the needle on climate change, these companies must build on their success in reporting and take stronger action to generate better results. We have seen this pattern among the larger public corporations and expect the same trend to develop among suppliers.

#### **Use more sophisticated tools to measure success**

Given the challenges in measuring and allocating gains between companies and their suppliers, companies will need to use better metrics and more sophisticated information management. Organizations such as CDP are now enabling better communication and providing a standardized platform for emissions-related information from suppliers. This not only reduces redundancy (multiple stakeholders requesting the same information) and provides improved risk management, but also paves the way toward strategic advantages and cost reduction. There is simply more to know about GHG emissions—and more to improve—with each passing year. Companies that do not upgrade their information management capability will be at a serious disadvantage.

#### **A new era: supplier management in the low-carbon economy**

The opportunities for generating value from climate-change initiatives are already large and still growing, and the supply chain is a key area of growth. The most forward-thinking companies are taking specific actions today to produce real, measurable business value, in the form of increased revenue, lower costs, mitigated risk, and a host of intangibles. These actions will only become more valuable—and mandatory in some cases—as the risks and impacts of climate change grow and as sustainability becomes increasingly embedded into the core of the businesses and governments that are part of your supply chain.

This is an extremely dynamic field, and some climate-change initiatives may fall short of projections, while others will lead to unexpected victories. However there is already enough precedent—supported by the findings in this report—to understand what works best. More effective evaluation of suppliers, better collaboration, and stronger procurement functions can all lead to markedly improved carbon management along the supply chain. In short, waiting for the perfect solution is no longer an option. There is value on the table for companies that can craft the right climate-change initiatives. If you don't, your competitors will.

## Uncharted Territory: Water in the Supply Chain

Since CDP launched its first global water report in 2010, water and its relationship with business have rarely been out of the news. Water crises from Texas to Thailand are hitting companies' profits, frequently because of shocks to their supply chains. Hennes & Mauritz (H&M) reported a surprise 30% fall in profits in the first quarter of 2011, largely because the price of cotton doubled in the previous 12 months as a result of increased global demand and disruption to supplies caused by drought and floods in cotton producing countries like Pakistan.<sup>14</sup> About one-third of the world's hard disk drive production is currently located in Thailand. The severe floods in this region in October 2011 caused a shortage in the supply of hard disks around the world.

In 2011 the Yangtze delta, which supports 400 million people and 40% of China's economic activity, experienced its worst drought in 50 years. The lack of water has damaged agricultural supply chains, led to power cuts that dampened manufacturing output, and disrupted distribution channels by closing river networks, including hundreds of kilometers of the Yangtze and its tributaries.

**“We are convinced of the link between water scarcity and climate change and are further investigating the supply chain risks to BT and our stakeholders.”**

### BT Group

Of course, because water is a business issue, it is also an investment issue. In only the second year of CDP's water program, 354 institutional investors representing US\$43 trillion in assets endorsed CDP's request to corporations for water-related information. Clearly, investors are recognizing the need for transparent reporting on water so that they can begin to understand the exposure to water risk of the companies in their portfolios.

Responses from Global 500 companies to the 2011 CDP Water Disclosure questionnaire reveal that the supply chain is largely uncharted territory when it comes to water:

- Only 26% of responding companies require their key suppliers to report water use, risks and management plans. Increasing supplier reporting is vital because the supply chain often accounts for the largest portion of a company's water use and risk;
- 38% of responding companies do not know if their supply chain is exposed to water related risk compared to only 7% for direct operations;
- 27% of responding companies reported exposure to water risk through their supply chain and two-thirds of the identified risks are anticipated within the next 1-5 years.

Such near-term risk suggests an urgent need for companies to address water risk in their supply chains. Instead of simply reacting to events by raising prices or cutting profits, companies like Puma are thinking strategically and are taking steps to reduce their exposure to water risk by setting targets to reduce water consumption from their strategic suppliers by 25% preparing them for potential future regulations due to increasing water scarcity. Companies that recognize that the true value of water is not adequately reflected in its cost will be best positioned to thrive in an economy of changing water resources. Those that think of water in terms of business continuity, license to operate and brand value will stand to gain.

14 “H&M Hit by Soaring Cotton Prices,” Financial Times, March 31, 2011, [www.ft.com](http://www.ft.com).

**Report Writer**

---



**Scoring Partner**

---



**Thank You**

---

**World Resources Institute**  
**Paul Donovan, UBS**  
**Firas Abiad**

**CDP Supply Chain Lead Members**

---



**Design and Typesetting**

---



**Bicycle Butter Design**  
Benjamin Lewis  
[www.bicyclebutter.com](http://www.bicyclebutter.com)

## CDP contacts

---

### Carbon Disclosure Project

40 Bowling Green Lane  
London, EC1R 0NE  
United Kingdom  
+44 (0) 20 7970 5660

### Carbon Disclosure Project

c/o RPA, 6 W 48th Street  
10th Floor  
New York, NY 10036  
United States of America  
+1 212 378 2086

### Paul Dickinson

Executive Chairman

### Paul Simpson

Chief Executive Officer

### Frances Way

Program Director  
frances.way@cdproject.net  
+44 (0) 20 7415 7095

### Zoe Tcholak-Antitch

Director, North America  
zoe.antitch@cdproject.net  
+1 (212) 378 2086

### Chrystina Gastelum

Sr. Account Manager – USA  
chrystina.gastelum@cdproject.net  
+1 (212) 378 2085

### Dexter Galvin

Account Director –  
EMEA & Asia  
dexter.galvin@cdproject.net  
+44 (0) 20 7415 7092

### Keith Littlejohns

Sr. Account Manager – Walmart  
keith.littlejohns@cdproject.net  
+1 (212) 378 2085

### Sonya Bhonsle

Sr. Account Manager – Europe  
sonya.bhonsle@cdproject.net  
+44 (0) 20 7415 7109

### Kirstin Hill

Disclosure Manager  
kirstin.hill@cdproject.net  
+44 (0) 20 7415 7142

### Emma Craig

Project Officer  
emma.craig@cdproject.net  
+44 (0) 20 7415 7026

## Accenture Contacts

---

### Accenture

1345 Avenue of the Americas  
New York, NY 10105  
United States  
+1 (917) 452 4400

### Gary L. Hanifan

Managing Director,  
Global Sustainable  
Supply Chain Services  
gary.l.hanifan@accenture.com  
+1 (850) 513 3515

### David J. Abood

Managing Director,  
North America Accenture  
Sustainability Services  
david.j.abood@accenture.com  
+1 (216) 535 5005

### Aditya Sharma, MS, PE

Operational Director,  
Global Sustainable  
Supply Chain Services  
aditya.e.sharma@accenture.com  
+1 (917) 856 9353

## CDP Board of Trustees

---

### Chair: Alan Brown

Schroders

### Chris Page

Rockefeller Philanthropy  
Advisors

### Jeremy Smith

Berkeley Energy

### Tessa Tennant

The Ice Organisation

### James Cameron

Climate Change Capital

### Dr. Christoph Schröder

TVM Capital

### Takejiro Sueyoshi

### Martin Wise

Chiltern Partners

The contents of this report may be used by anyone providing acknowledgement is given to Carbon Disclosure Project. Accenture and CDP prepared the data and analysis in this report based on responses to the CDP Supply Chain Program 2009 Information Request. Accenture and CDP do not guarantee the accuracy or completeness of this information. Accenture and CDP make no representation or warranty, express or implied, concerning the fairness, accuracy, or completeness of the information and opinions contained herein. All opinions expressed herein are based on Accenture's and CDP's judgment at the time of this report and are subject to change without notice due to economic, political, industry and firm-specific factors. Guest commentaries or quotations where included in this report reflect the views of their respective authors or companies.

Accenture, its logo, and High Performance Delivered are trademarks of Accenture. This document makes reference to trademarks that may be owned by others. The use of such trademarks herein is not an assertion of ownership of such trademarks by Accenture and is not intended to represent or imply the existence of an association between Accenture and the lawful owners of such trademarks.

© 2012 Carbon Disclosure Project. All rights reserved.

'Carbon Disclosure Project' and 'CDP' refers to Carbon Disclosure Project, a United Kingdom company limited by guarantee, registered as a United Kingdom charity number 1122330, and CDP North America, registered in the United States as a 501(c)(3) Corporation.