

CDP Water Disclosure

The Case for Water Disclosure

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Introduction

The Carbon Disclosure Project (CDP) is an independent not-for-profit organization that holds the largest database of corporate climate change information in the world, gathered on behalf of institutional investors, purchasing organizations and government bodies. CDP's mission is to collect and distribute high quality information that motivates investors, corporations and governments to take action to prevent dangerous climate change.

CDP was founded in 2000 and has grown rapidly as investor and corporate awareness of the risks and opportunities of climate change has developed. In 2009 CDP issued an information request to over 3,700 of the world's largest publicly quoted companies on behalf of 475 investors with assets under management of over \$55 trillion.

In 2007, CDP extended its work by launching CDP Supply Chain, helping large organizations engage with their suppliers to generate and use high quality information on the implications of climate change to their supply chains. Several of the member companies asked CDP to help them engage with suppliers on issues related to water. Recognising the importance of water-related issues, both as a critical part of the wider climate change challenge and as a stand-alone issue, CDP carried out a water disclosure pilot in 2008 (the Pilot).

It is easy to imagine that water is cheap and plentiful. In reality, its availability depends on a range of environmental, social and economic factors and it is too often scarce, undervalued and wasted. Notwithstanding the current economic situation and the concerns about energy security, water, like climate change, will be one of the key issues of the 21st century.

Water scarcity is a growing problem that affects governments, businesses and individuals in many parts of the world. The actions of business will have a significant impact on the scale and impact of such scarcity and on the development and implementation of potential solutions. At present, however, business awareness of the issues, risks and opportunities is limited and investor understanding of the threats and opportunities is even less developed.

This report, prepared by Irbaris, summarises the case for disclosure of water-related risk and some key findings and conclusions from the data collected from the Pilot. This report is also intended to be a call to action to all stakeholders in the water debate and lays out what CDP intends to do in relation to this critical issue.

I welcome the Carbon Disclosure Project's initiative to raise awareness of the importance of water and the opportunities there are to improve water management. I am sure that as with carbon disclosure this will help us to understand water usage and as a consequence value this precious resource.

Hilary Benn
Secretary of State for
Environment, Food &
Rural Affairs

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Executive Summary

Much of the impact of climate change will be felt through changing patterns of water availability, with shrinking glaciers and changing patterns of precipitation increasing the likelihood of drought and flood. If climate change is the shark, then water is its teeth and it is an issue on which businesses need far greater levels of awareness and understanding. CDP Water Disclosure will raise this awareness and drive companies to take action to mitigate risks and seize opportunities.

Paul Dickinson
CEO of the Carbon Disclosure Project

The impacts of changing patterns of water availability are neither recognised nor well understood by most businesses. Yet they are set to worsen as demand for water increases due to a rapidly growing world population and to changing patterns of consumption, and its supply is threatened by climate change. Indeed, in many parts of the world the impact of climate change will first be seen (or has already been seen) in changing patterns of precipitation and water availability.

The measurement and reporting of water availability and usage is itself much more complex than for carbon – for two reasons. Firstly, water is a local as well as a global issue. Whereas it does not matter whether a tonne of CO₂ is emitted in Sydney or Stockholm (in terms of its environmental impact), the impact of extracting a cubic metre of water varies enormously with geography. Secondly, the source and use of the water also make a big difference – the impact of using water that has fallen recently as rain is often different from that of withdrawing water that has been stored in an aquifer for millennia. While standards to capture these complexities are being developed, there is no consensus yet on what exactly the standards should be, never mind consistent or widespread adoption of such standards.

Investors need to be concerned about water because it is already impacting companies' operations and costs and it will continue to do so. Some investors already understand this, but they lack reliable comparable information on which to base their assessments. CDP strongly believes that effective and widespread disclosure of businesses' water usage, risk profile and opportunities is key to enabling investors to understand the threats and opportunities and to stimulating early action from businesses.

Water disclosure Pilot

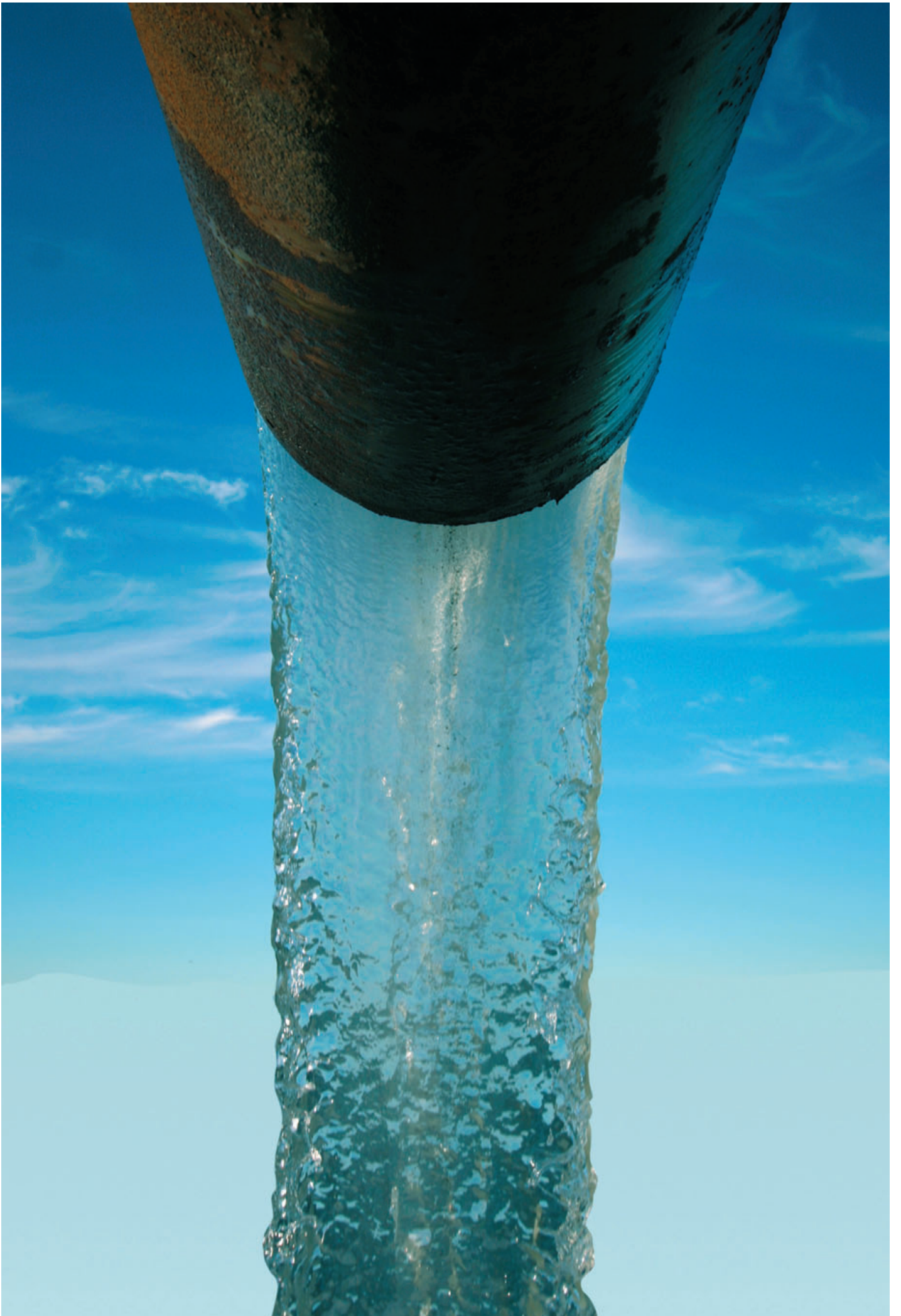
CDP also recognises the complexities and uncertainties around water disclosure and therefore completed a small pilot project as part of CDP Supply Chain in 2008 (the Pilot). While the sample was necessarily small, the Pilot demonstrated that businesses are able and willing to provide valuable information on their water usage and water-related issues and activities. The Pilot also provided valuable lessons and insights into the difficulties, but overall CDP was encouraged by the process and the results.

The key findings from the Pilot are as follows:

1. No companies in the Food & Beverage industry responded to the questionnaire.
2. Most companies do have information on their direct water usage.
3. Only half of the respondents saw water as a risk for their business and for their supply chain.
4. Most companies do not have data on water use or water issues in their supply chain.
5. Many companies have a water management plan, but only for their own plants.
6. More than half of the respondents see water as an opportunity.

Much needs to be done to develop a meaningful programme of disclosure, including the establishment and adoption of effective reporting standards, and educating businesses and investors as to the value of such disclosure. Nevertheless, disclosure will only be of real benefit when it leads to action. Such action should include pressure from investors on businesses to address their key water risks and exploit related opportunities, as well as businesses taking proactive steps to address the issues and opportunities. While the issues around water availability are wider than just those that impact business, business must play a key role in helping the global community to address them.

CDP is committed to raising awareness and understanding of the business impacts of changing patterns of water availability and to facilitating a rational response to the challenges it poses from the investors, corporations and governments. The Pilot project and this report are CDP's first steps, and CDP is now launching CDP Water Disclosure, a new programme which will help institutional investors to better understand the financial risks that water-related issues pose to their investment portfolios. In doing so, CDP will continue to work closely with the investment community, businesses, leading NGOs and other key stakeholders to ensure that the water disclosure process is as well regarded and valued as is the existing CDP process for carbon.



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Why Water?

A key issue for the 21st century

Water scarcity is a growing problem that affects governments, businesses and individuals in many parts of the world, and it will be one of the key issues of the 21st century. As with climate change, businesses will be directly affected by water issues and equally, business action will have a major impact on the scale of the problem and on the potential solutions. At present however, business awareness of the issues, risks and opportunities is limited and is, perhaps, comparable to business understanding of climate change five years ago.

It is easy to imagine that water is cheap and plentiful. In reality, its availability depends on a range of environmental, social and economic factors and it is too often scarce, undervalued and wasted. Less than 1% of the world's water is easily accessible fresh water and increasing population, urbanisation, per capita demand, and pollution damage to supplies will put even greater pressure on these limited resources. As a result, the UN forecasts that by 2025 almost three billion people will live in countries facing water stress or water scarcity.

Linkages with climate change

Climate change will further exacerbate some of these problems. The impact of the changing climate on water is complex, but overall the IPCC's Fourth Assessment report concluded that *"the negative impacts of climate change on freshwater systems outweigh its benefits"*. Such negative impacts will include changing patterns of precipitation, reduced glaciation (which is potentially critical to a number of Asian countries), salination of aquifers, and a greater demand for water. The potential effects of climate change on water are a major driver for some countries to want to take action to address climate change in order to minimise the impact on their water resources.

Moreover, it is not obvious that shifting to certain 'clean energy' technologies will necessarily directly help with water issues. There are many direct and indirect linkages between water and energy that complicate the relationship between clean energy and water management issues. For example, most biofuel crops, solar panels and carbon capture technologies require large quantities of water in their production or use whilst conventional nuclear power plants require access to large amounts of cooling water.

Business risks

Changing patterns of water availability are creating challenges and opportunities for many businesses, even though too many do not yet realise the risks or the opportunities either to address the issues or to make money. Water can affect businesses in a variety of ways, including:

- **Physical Risks** encompassing general changes in the quantity or quality of water. These risks can be brought to bear through increased water scarcity or stress, declining water quality or changing global/local hydrological conditions, all of which may well be exacerbated by climate change;

- **Regulatory Risks** arising from current or expected national or global policies that could place additional financial burdens on the users of water. Regulation may relate to pricing, use or efficiency, pollution, withdrawal rights, reuse or recycling, process or product standards or licenses to operate. In some cases the absence or poor enforcement of effective regulation may be more of a threat than stricter regulation; and
- **Reputational Risks** resulting from increasing competition between users, typically arising from (actual or perceived) abuse of abstraction rights, or the pollution of groundwater sources, particularly in the developing world. Reputational issues can be shaped by a complex combination of events, information, media, stakeholder needs, public opinion, NGOs and policies, and can have severe implications for business performance and competitiveness.

The most significant issues for businesses are often not the most visible. Many companies have effective programmes to manage water within their direct operations (often motivated by licence to operate concerns), but they may have minimal understanding of the threats to their business from scarcity or other issues in different parts of their supply chain. Such threats may arise directly from the availability of agricultural products or indirectly from the social and political impact of severe water shortages. There will also be opportunities for those businesses that recognise these risks and take early mitigating action.

In those sectors most affected (Agriculture, Metals & Mining, Power, Oil & Gas) some of the opportunities may be clear, but the potential to help address wider issues (beyond CSR activities) is less well understood.

Increasing awareness and understanding

Awareness of the risks posed by water issues is increasing among investors. JP Morgan, in its 'Watching Water' report of April 2008, offered a framework for evaluating the impact of water scarcity and water pollution whilst also noting that *"corporate disclosure of water-related risks is seriously inadequate"*. The sustainable investor group CERES has also published a substantial report (in February 2009) on the risks to business from water, calling for greater action, including disclosure. In addition, a CEO Water Mandate working paper examined the extent to which companies disclosed water use and related risks, and further work seeks to provide a framework for greater transparency. Some companies, especially in the Food & Beverage industry, are already working with these groups to understand the exposure to these risks; perhaps in part because they have already suffered operational or reputational consequences of water-related issues.

The challenges created by changing patterns of water availability are huge. Business understanding of both the problems and the potential solutions remains incomplete, inconsistent and inadequate. Climate change will make the position worse. However, the increased awareness of environmental issues that the climate change challenge has created and, critically, the increased strategic importance and influence given to people responsible for sustainability issues means that there is greater potential for businesses to take positive action to address water-related issues.

Why Water?

Viewpoint from the World Economic Forum Water Initiative "Managing Our Future Water Needs"

There is a structural problem in how we manage water across our global economy. Worsening water security will soon tear into various parts of the global economic system. Water security will start to emerge as a headline geopolitical issue. The extremely hot European summer of 2003 that saw many of the continent's key rivers at record low flows and power generation interrupted as a result of a scarcity of water for cooling, the sea tankers that shipped in fresh water for Barcelona in 2007, the volatility in global food price rises and subsequent "tortilla wars" of early 2008, the social outrage over the perceived trade off of water for food versus water for fuel that followed many early agricultural policy decisions on first generation biofuels; the decision in 2008 of Saudi Arabia to set up an investment fund to acquire land overseas to grow the crops it needs at home due to water shortages; these should be treated as the early warning signs of what is to come in our future water economy.

In many parts of the world we have consistently under-priced water, wasting it and overusing it as a result. Against a background of hugely inequitable access to water for basic human requirements around the world, we have depleted stocks of groundwater and diverted rivers at the expense of our future water needs, whilst also failing to meet all our current demands. In effect we have exploited a series of water "bubbles" – especially in agriculture – to support rapid economic growth over the past 50 years or so. We are now on the verge of water bankruptcy in many places with no way of paying the debt back. In fact, a number of these regional water bubbles are now bursting in parts of China, India the Middle East, the south western US, the Mediterranean and Australia; more regions will follow. The consequences for regional economic and political stability will be serious if we do not act soon. Current demands on water are many and urgent, future demands on water for food, energy and urban needs are huge. And climate change simply amplifies the scale and speed of the water challenge: managing our future water needs is, in effect, the adaptation challenge. This is why water matters.

Dominic Waughray, Senior Director,
Head of Environmental Initiatives, World Economic Forum

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What Needs to be Measured?

Water provides a unique set of measurement and reporting challenges because it is both a global and a local issue and because there are different types of 'use'. 'What gets measured gets managed' is a common business adage, but even those companies that are working to understand the risks and opportunities that water presents are struggling with the fundamental question of how to quantify their use of water and assess their exposure to water risk and the opportunities it presents, irrespective of what information investors and other stakeholders might require.

There has been a rapid increase in the reporting of Corporate Sustainability Indicators in recent years and even privately held companies now produce sustainability or CSR reports. Despite this, there is still a paucity of data on corporate water use. A recent survey by the Pacific Institute found that across 110 companies that the Institute assessed, *"water reporting was not sufficiently comprehensive or comparable"*. This may be due, in part, to the lack of a widely accepted standard for reporting corporate water usage, but it also suggests that there is still a great deal companies need to do to ensure appropriate levels of transparency.

Whilst much can be learned from the experience of measuring and reporting GHG emissions, water measurement and disclosure is not as 'straightforward' for a number of reasons. First and foremost, water is a local or regional issue. The challenges and opportunities will reflect patterns of local precipitation, watersheds and aquifers, as well as the degree and nature of local use. Unlike a tonne of carbon dioxide which has the same impact whether emitted in Stockholm or Sydney, the geographic dimension of water use is critical. A litre of water used in Sydney has very different consequences to a litre used in Stockholm. This creates a number of complexities for businesses trying to understand, to disclose meaningfully and to manage, their use of water and their water-related risks.

The global nature of business and supply chains means that water use is linked across multiple geographies and many businesses will be significantly affected by changing patterns of water availability far from their own facilities while their own assets may not be affected at all. This increases the scale of the measurement and disclosure challenge for water. For large companies relying on perhaps many thousands of suppliers, the assessment of water use and related issues associated with their products or supply chains is potentially highly complex. Similarly, for companies that rely on the global agro-commodities markets for their raw materials, simply obtaining reliable data may be a substantial challenge.

Assuming a company decides where to measure its exposure, the next challenge is deciding 'what' to measure. Again, this may sound trivial, but unlike for GHG emissions which can be expressed in tonnes of CO₂-e, there is no adequate all-encompassing unit of measurement for water. Rather than considering volume alone, it is also necessary to consider the 'type' and quality of the water used (and returned to the water system), and whether it is scarce or abundant in the region concerned.

1. Water 'type'

Consensus is now emerging as to how to categorize different types of water with many businesses now referring to their 'Green', 'Blue' and 'Grey' water use. Blue water is freshwater from surface or ground water, Green water is water from the rainwater stored in the soil as soil moisture, and Grey water is polluted water associated with production. However, measuring the quantity of each type of water that a business uses is often not straightforward, with Green water usage, for example, varying significantly depending on the local climate and agricultural methods.

CDP believes that establishing standards and improving disclosure must develop in parallel. CDP is working closely with the WWF, CEO Water Mandate, WRI, WBCSD, GRI and similar stakeholders and strongly supports the development of effective standards.

2. Abundance or scarcity of local supply

Clearly, the impact of using a given quantity of water will be worse in an area where its supply is scarce than where it is plentiful. A further challenge is that the impact of abstraction on deep aquifers may not be immediately visible and the depletion of such supplies may not be apparent until it is too late.

3. Water quality

The quality of water available for use and of water returned to the water system as Grey water after it has been used are both material to businesses. Indeed, in some areas where the quantity of water available is not an issue the more pressing concern may be the Total Dissolved Solids (TDS) in the local water supply, which give an indication of its quality.

Thus, using more water is not necessarily 'bad'. For example, producing water-intensive foodstuffs in areas where there is plentiful Blue water may be less of a problem than producing the same crops using scarce groundwater supplies (as happens in various countries including the US, Spain and many developing countries), even if more water is required to grow them.

Emerging Standards

Some groups, such as the **Global Reporting Initiative** which has developed a leading standard for many sustainability indicators, are already developing water reporting standards. The GRI currently includes five water-related indicators in its GRI3 set of guidelines:

Water

EN8: Total water withdrawal by source

EN9: Water sources significantly affected by withdrawal of water

EN10: Percentage and total volume of water recycled and reused

Emissions, Effluents, and Waste

EN21: Total water discharge by quality and destination

EN25: Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff

In addition, the **Water Footprint Network** is committed to "developing standards (methods, guidelines and criteria) for water footprint accounting" but a consensus approach is yet to emerge.

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Why Water Disclosure?

The success of CDP has shown that disclosure of carbon and climate-related risk has a key role to play in accelerating action on such complex issues; this will also be true for water-related issues. Disclosure has a number of distinct benefits including raising general awareness of the issues through the publication of reports, requiring businesses to enhance their understanding of their own water issues as well as underpinning the debate on measurement protocols and performance benchmarks. It is likely that investors, regulators, customers and other stakeholders (e.g., insurance companies) will also increasingly require information on water-related risk to enhance their decision making.

The proliferation of CDP initiatives across the world's largest stock markets clearly demonstrates the support for climate-related risk disclosure, and CDP's questionnaire is now a generally accepted part of many company's annual reporting cycle. Despite the lack of a similar global initiative, business disclosure of water-related risk will also have a number of valuable benefits:

1. Raising businesses awareness and requiring enhanced understanding of their own issues, risks and opportunities;
2. Supporting efforts to develop standard measures and performance benchmarks;
3. Providing investors, regulators and other stakeholders with better information;
4. Raising general awareness of water-related issues; and
5. Encouraging action and dialogue.

1. Enhancing business awareness and understanding

Assessing and managing water-related risks and opportunities will need to be part of many businesses' climate change plans. For some businesses the need to adapt to the changing climate (including its impact on water) will be more important and more challenging than managing their GHG emissions. Meaningful and relevant information on water use and risks is an essential first step to understanding such risks. Many of the businesses operating in, or sourcing from, areas facing water stress lack awareness of the risks related to water use and the business benefits of reducing water usage throughout the value chain. Seeking disclosure of water-related risks across the supply chain will engage a wide range of businesses and simply posing questions relating to water-related risk will begin to stimulate an understanding of the issues and opportunities for the businesses and their key stakeholders.

2. Developing standard measures

The absence of effective standards has limited the number of companies disclosing meaningful and comparable information and has resulted in most companies disclosing only de minimis information on their own direct use of water. As discussed in the previous section, there has been much debate on standards and a consensus is now emerging on how to address some of the key questions. Standards only become established, however, when they achieve widespread acceptance and use. CDP believes that a 'learning by doing' approach driven by disclosure will contribute greatly to developing effective, workable and accepted standards as well as providing pragmatic examples of which data are most suitable and deliver most value for different sectors and stakeholders.

CDP strongly believes that the rapid roll-out of an effective disclosure programme will be a catalyst to accelerate the understanding of water issues within participating businesses and across their key stakeholders.

3. Providing relevant information for investors and other key stakeholders

New policies and regulatory environments will inevitably be needed to ensure sustainable water use, and greater transparency and corporate debate will help provide valuable information in shaping the regulatory environment and stimulating new measures including market-based structures. Investors will also have a role to play and helping to raise their awareness and providing them with better information is important. Only when investors have access to the right data will they be able to make better informed decisions and direct the flow of capital away from risks and towards solutions. Making the data for such decisions widely available is a key goal of CDP.

4. Raising general awareness

An improved collective understanding of the risks and opportunities will be essential to sustainable water management and to this end, cross-communication between stakeholders will be crucial. Unlike carbon, watersheds require collective management and whilst both have the potential to be politically sensitive, water is arguably an even more difficult political issue. Disclosure will help to highlight the water-related linkages between different sectors and supply chains, including the increasingly crucial interface between water and energy. Better water-related information will help businesses and other stakeholders to identify long term trends and potential 'hotspots' which can in turn be tackled individually or collaboratively.

The Investor Perspective

The growing volume of investment research on water is a clear indicator that the scarcity value of water is being recognised in investment terms. Identifying good investment ideas in the utilities and water technology space is one avenue for those who actively seek exposure to water, and the number of water theme funds is steadily going up. As long-term universal investors we have significant exposure to water (scarcity) – regardless of whether we seek it or not – through our investee companies.

Currently, the lack of meaningful disclosure stands in the way of effective investment analysis. Water risks can be manifest across the entire value chain of companies, not just in their own operations, but the real risks may well lie in the supply chain or at the product use stage. A number of sell-side research reports have alerted investors to the inherent, potentially significant risks of not understanding water exposures fully.

Therefore better understanding of how to measure water use, water risk and exposure, and greater transparency and reporting by companies is vital for better investment analysis. This is no longer a matter just for 'socially responsible' investors. It is a key concern for any investor wishing to understand how long-term resource constraints will affect financial performance of the companies and assets they invest in across their portfolio as a whole.

As various initiatives work to advance and develop measurement and reporting methodologies, we believe that a water disclosure initiative can be an important facilitator to generate investment-relevant information on water.

Claudia Kruse
APG Asset Management

5. Action and dialogue

Raising awareness and creating better metrics for benchmarking performance will eventually lead to the most important outcome of all – action. Challenging businesses to disclose their performance and targets as well as raising water as a strategic business issue will create pressure on them to take demonstrable action. Increasing disclosure allows progress to be tracked and to ensure that companies are moving in the right direction towards sustainable water use.

Disclosure: WWF's View

Increasing global water scarcity in the next 40 years is a certainty. Three billion more people, a near doubling of water for irrigation to feed the world, more dams to generate hydropower, competition from bio-energy crops and a progressive contamination of fresh water resources. The implications are clear: meeting the needs of society and the environment in the future will be heavily constrained by the availability of fresh water. This collectively implies that social and environmental objectives will have to be met within absolute water constraints.

Today, the business world is awakening to this reality and beginning to ask tough questions about their ability to grow under such pressures. Corporate risk related to water is therefore an emerging issue and is likely to become more significant, due to the aforementioned issues, but also because of investor perceptions, public and media awareness.

Companies are already assessing the risks and uncertainties they face throughout their supply chains in producing and marketing their goods and services. However, while there is widespread recognition and acceptance of the issue, there is less clarity over how to best measure, report and respond to water risks in the company profile.

There is now a global effort to establish harmonized 'tools' for business that can also measure impacts as well as volumes. The Water Footprint Network (WFN) is one such organization that has been established towards standardizing the methods used for companies, municipalities and other entities interested in measuring water. The advancement of methods in this area is helping to avoid some of the confusion that has gripped the carbon debate, and seeks to assure that responses are credible and are developed sooner rather than later.

While these measures are crucial, they alone will not amount to full water disclosure. Instead we will need alignment between measures and standards for water users. Similarly, because of water's unique characteristics, and its ever moving and changing nature, water disclosure will have to contain qualitative information on the specific watersheds where water is taken. This will have to include social impacts, water policy decisions and wider issues of price, water rights and allocative efficiencies.

Water disclosure will be essential in a water constrained world, and we need to begin now in defining the barriers to 'good' disclosure. This is achievable and will require collaborative and shared efforts to reducing impacts and showing responsibility for the water that we all require.

Stuart Orr
Freshwater Policy Officer, WWF



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CDP Water Disclosure Pilot

As a result, CDP Supply Chain 2008 included an optional module on water disclosure in order to conduct a small scale pilot. CDP, with the help of four CDP Supply Chain members, requested specific water-related disclosure from 42 companies across multiple sectors. The module included questions on water usage and management in three distinct sections: Water-related Risks and Opportunities; Water Accounting; and Water Management. The general format mirrored the main CDP questionnaire closely and the results provide both a quantitative and qualitative element. (A copy of the questionnaire is included as Appendix I.)

The sample size of the Pilot was deliberately small. Moreover, the overall response rate of 36% was low, but in line with what might be expected from the experience of the broader CDP Supply Chain work, and the results are heavily skewed by the nature of the companies that actually responded. While it would therefore be wrong to draw definitive conclusions, there are a number of striking observations from the sample.

1. No surveyed companies in the Food & Beverage industry responded to the questionnaire.

This is surprising given the already known exposure of the Food & Beverage sector to issues of water scarcity. A high proportion of the companies that did respond were Professional Services and IT & Telecoms firms. Due to the small sample size, this bias in responding companies limits the conclusions that can be drawn from the Pilot, but it is striking that a number of the companies that are likely to be most affected did not respond. It is unclear whether this poor response rate reflected an inability or an unwillingness to respond.

2. Most companies do have information on their direct water usage.

A high percentage of respondents were able to provide data on their own water usage as well as the percentage of their operations which are located in water stressed areas. Again, due to the type of company responding, the water usage data was largely related to municipal supply use and therefore many companies were able to measure this easily and perceived this to be of low risk.

80%

of responding companies were able to provide data on their water use

CDP is encouraged by the response to the Pilot and the feedback from participants given the small size and the limited time available for participants to prepare for the survey.

3. Only half of the respondents see water as a risk for their business and for their supply chain.

Just under half of those responding (47%) felt that water represented some form of risk to their supply chain, and the same proportion deemed water to reflect a material risk to their own business. This is likely to be due in part to the mix of companies that actually responded to the questionnaire, with most professional services firms seeing no direct risk to their operations because of the relatively small amount of water they consume. These companies, and others, may be being lulled into a false sense of security by the small quantities of water they use. However, this may also reflect a wider lack of understanding of the true nature of water-related risk and the potential for risk to arise quite suddenly.

4. Most companies do not have data on water use or water issues in their supply chain.

Critically, despite identifying supply chains as being potentially at risk from water-related issues, no respondents were able to provide data on their tier 1 suppliers' water use or to quantify the exposure of their business through the purchase of raw materials. Many companies did respond saying that this was an area they were currently investigating, but this trend strengthens the rationale for greater disclosure between companies, not only to raise awareness but also to provide a public forum for examination and use of the data that is collected. The emergence of clear standards for disclosure is also likely to help companies move beyond exploring what needs to be done.

5. Many companies have a water management plan, but only for their own plants.

Around half of respondents (53%) stated that they had a water management plan in place but only a few of these plans addressed factors outside the direct control of the company. Furthermore, not all companies with water management plans set targets for reducing their consumption. Many of the activities undertaken as part of the plans encompass employee engagement and behavioural change was cited as a key factor in achieving the goals of any reduction in water consumption. Overall, there would seem to be significant scope to develop a clear blueprint for a 'best practice' water management plan and for more companies to develop and implement such plans.

6. More than half of the respondents see water as an opportunity.

Professional service firms identified opportunities including building sustainable watershed management models and helping clients with regulatory compliance. Most manufacturing firms saw opportunities related to new products such as smart meters and new processes. It is encouraging that companies already see opportunities and it is likely that there will be many more opportunities (as well as risks) that need to be identified.

The small sample size and nature of the responding companies limits the scope for wide-ranging conclusions from the Pilot. The level of detail in the responses was comparable to the those on GHG emissions when CDP started. Further work on the questions and on promoting the value of the responses to the targeted companies will improve the number, nature and quality of the responses.

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What Needs to be Done Now?

Developing an effective programme of disclosure will not be straightforward, but will provide significant benefits and is essential to businesses ultimately managing their risks and opportunities. Much needs to be done in order for business to address water-related issues. In particular, action is needed to effect the disclosure of water usage by businesses and the water-related issues they face – notably to raise awareness amongst key stakeholders, to develop robust standards, to roll out an effective disclosure programme, and to ensure that disclosure is linked to action. The key requirements for an effective disclosure programme are:

- Developing agreed reporting standards and measurement tools that can be applied meaningfully to a wide range of circumstances. In practice, given the complexity of the issues, it may be that standards will evolve significantly over time as the lessons learned from early analysis help to refine what is needed and clarify what is truly important to report;
- Securing commitment from leading companies and key stakeholders to making disclosure happen and taking action on the results of such disclosure; and
- Creating the practical framework to manage the collection, analysis and dissemination of data in a format accessible to businesses, investors, policy makers and other stakeholders. (Clearly this is an area where CDP already has deep experience and a strong track record.)

Disclosure itself is not sufficient – the ultimate goal must be for it to result in positive proactive action to address the underlying issues.

The CEO Water Mandate and Disclosure

Since the inception of the CEO Water Mandate, endorsing companies and external stakeholders alike have identified transparency as a key issue underpinning the credibility of the initiative. Indeed, a cornerstone of the initiative has been the commitment from its participants to provide disclosure of their actions with regard to the Mandate. In October 2008, in an effort to ensure accountability and advance good practice in water reporting in the private sector, the Mandate published Phase One of its Transparency Framework. Among other things, the Transparency Framework provided objectives and principles for water reporting within the initiative, as well as minimum reporting requirements for participation in the initiative.

In August 2008, the Mandate Secretariat and endorsing companies unanimously agreed on the necessity to take action to further advance the Transparency element of the Mandate. It was concluded that Phase Two of the Transparency Framework should start with a compilation and analysis of current corporate water reporting practices in the areas covered by the six Mandate elements, with an aim toward understanding commonalities, differences, and gaps. The group believed that such a document can help advance reporting relating to those elements in and of itself, while also serving as de facto guidance in so far as it can identify common approaches, challenges, and omissions.

In March 2009, the Mandate released “Water Disclosure 2.0 – Assessment of Current and Emerging Corporate Water Reporting”, which compiles and analyzes the water-related information provided in the Corporate Responsibility (CR) reports of 110 companies representing 11 industry sectors that are either water-intensive in their operations or have significant leverage with which to influence water development, policy, or management.

The analysis focuses on two aspects of corporate water reporting: 1) the approaches and methods used for determining content and, 2) the depth, breadth, and usefulness of reported content related to water.

Jason Morrison
The Pacific Institute

CDP recognises that there is much being done on water-related risk and that there is still much to be done by key stakeholders, and believes that a key catalyst to action will be a high profile disclosure initiative.

The creation and widespread availability of meaningful and comparable data on the use of water by major businesses should be a catalyst for and support a number of other key steps that need to be taken to address the global water challenges. In particular, the availability of such information should:

- Establish performance metrics and benchmarks for companies to use in setting targets, assessing investments and developing plans;
- Catalyse other areas of the broader economy to begin to gather and analyse more relevant data, especially in the area of agriculture which is the key user of water globally;
- Encourage other smaller businesses to understand and address their own challenges and opportunities relating to water;
- Enable investors (in both the private and public sectors) to make better informed decisions about the impact of water on their investment portfolio and to identify opportunities to improve the environmental impact and business performance of their investments;
- Inform public policy development and move the debate away from focusing on the needs and activities of the water (supply) industry; and
- Promote better understanding and collaborative working between different stakeholders.

Water connects complex issues such as climate change, human rights, energy and waste management, and the links are often not widely or well understood. Increased awareness and the availability of reliable and relevant data can help to address this, as can communication between key public policy stakeholders.

8

Launching CDP Water Disclosure

As a result of the successful Pilot and the increasing interest from the investment and corporate communities, CDP is launching CDP Water Disclosure. This programme will build on CDP in creating a platform for the disclosure of climate change-related business data. CDP Water Disclosure will use the same model and share the IT systems and back-office processes developed for CDP, which will allow for the collection and dissemination of robust business-relevant data on the impacts of changing water availability to business and investors.

CDP Water Disclosure will follow a similar format to CDP and will invite investors to become signatories to an annual information request issued to large publicly quoted companies asking them to disclose regarding the impacts of water on their business, with information disclosed via a dedicated website. Disclosure will follow a similar format to the CDP questionnaire and will use the Pilot questionnaire as a starting point (see Appendix I).

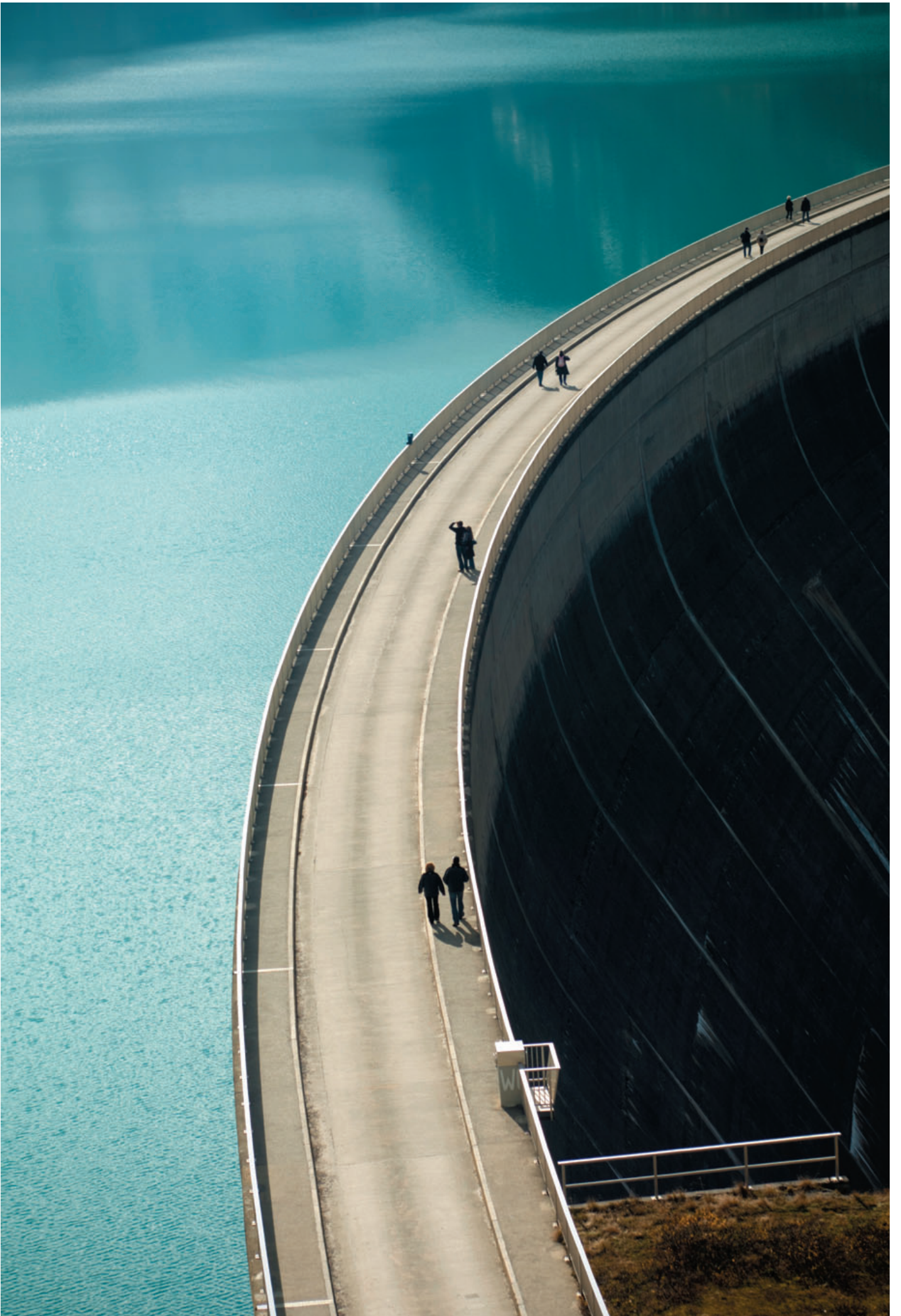
The questionnaire will cover:

- Risks and opportunities in own operations and supply chains (physical, regulatory and reputational);
- Water metrics in own operations and supply chains (footprint, exposure to water stress etc); and
- Water management, governance and improvement plans.

CDP Water Disclosure will not seek to develop standards in the complex area of water risk analysis or footprinting, but will work with the leading global organizations to facilitate the adoption of emerging best practice in this area. CDP has already worked with many expert organizations in establishing the Pilot (e.g. GRI, WRI, WBCSD, Pacific Institute, CEO Water Mandate, WWF, WEF and the Water Footprint Network) and this close co-operation will continue over the expected evolution of CDP Water Disclosure.

CDP is ideally placed to lead a global water disclosure initiative. Its network of relationships with investors, corporations, governments and other NGOs, and its experience and expertise in managing a global disclosure programme make CDP the natural choice to lead on water disclosure and to secure the support of businesses and investors to create a successful programme.

CDP is proud to be launching CDP Water Disclosure, a new programme which will help institutional investors around the world to better understand the financial risks that water-related issues pose to their investment portfolios, by increasing the availability of high quality business information on this critical issue.



9

Conclusions

Issues relating to water are arguably more complex and intractable than those relating to carbon emissions. However, CDP is ideally placed and firmly committed to facilitating the debate and catalysing a rational response and with the launch of CDP Water Disclosure seeks to do just this.

Water may well be the defining environmental issue of the 21st century. The potential impact is huge, the challenges posed are significant and the solutions will require co-ordinated action from businesses, individuals and governments. Moreover, the solutions required are not always obvious and the correct approaches may only emerge through trial and error. Climate change will exacerbate many of the issues relating to water and any adaptation strategy must include a consideration of water related issues.

Disclosure is increasingly recognised as having a key role to play in the management of any business issue, but in particular those relating to the environment. CDP has achieved much already and the benefits of increased disclosure of carbon emissions are clear to investors, regulators and businesses alike. A similar approach will yield similar benefits for stakeholders in water management. There are already a number of stakeholder working groups who have recognised the need for increased water related disclosure but a concerted, multinational initiative has yet to emerge. CDP is seeking to change this.

The results of the Pilot indicate that many companies do not have a grasp of the risks or opportunities presented by water and that even fewer are aware of the potential risks relating to the goods and services they purchase through (often global) supply chains. Furthermore, almost all companies surveyed lack an adequate management plan for

water either in their own facilities or in their supply chains. Much remains to be done to determine the most useful form of water disclosure and the metrics through which companies should disclose their performance, but CDP believes that only through a multi-stakeholder dialogue and a collaborative approach will a consensus emerge.

Given the results of the Pilot and the increasing calls for a transparent water disclosure initiative, CDP has decided to launch CDP Water Disclosure. This initiative will build on the huge success of the Carbon Disclosure Project and will aim to strengthen and accelerate the debate on water related issues amongst all stakeholders. CDP will work alongside all of the key stakeholders in the debate and believes that a water disclosure programme will be the most effective way to stimulate a rational and coherent business response to the issues of water availability.

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Appendix I: Pilot Questionnaire & Summary Results

QUESTION W1 Water-related Risks and Opportunities

W1a) Water-related risks – own operations

- i. Regulatory risks: how is your company exposed to regulatory risks related to water in its own operations?
- ii. Physical risks: how is your company exposed to physical risks related to water in its own operations?
- iii. Reputational risks: how is your company exposed to reputational risks related to water?

W1b) Water-related risks – your supply chain

- i. Regulatory risks: how are the companies in your supply chain exposed to regulatory risk related to water?
- ii. Physical risks: how are the companies in your supply chain exposed to physical risks related to water?
- iii. Reputational risks: how are the companies in your supply chain exposed to reputational risks related to water?

W1c) Opportunities

- i. How do water-related aspects of climate change present opportunities for your company?

QUESTION W2 Water accounting

W2a) Accounting parameters

- i. Reporting boundary: please indicate the category that describes the company, entities or group for which your water usage is reported.
- ii. Reporting year: please state the start date and end date of the year for which you are reporting water usage.
- iii. Methodology: please specify the methodology used by your company to calculate water usage.

W2b) Water usage in own operations

- i. Are you able to provide data for the total water used in your own operations?
If so, please provide it here (in cubic metres per year).
- ii. What is the effect of your water withdrawals and discharges?

W2c) % of operations in water-stressed regions

- i. Are you able to identify which of your operations are in water-stressed regions?
If so, please report the percentage of your operations which is in these regions.

W2d) Water usage in supply chain

- i. Are you able to provide data for the total water used by your tier 1 suppliers?
If so please provide it here (in cubic metres per year).
- ii. Are you able to provide data for the total water used in your upstream supply chain?
If so, please provide it here (in cubic metres per year).

W2e) % of supply chain in water-stressed regions

- i. Are you able to identify which of your tier 1 suppliers are operating in water-stressed regions?
If so, please state the percentage of your purchases which come from water-stressed regions.
- ii. Are you able to identify how much of your total upstream supply chain raw materials come from water-stressed regions? If so, please state the percentage of your supply chain's raw materials come from water-stressed regions.

QUESTION W3 Water management

W3a) Does your company have a water management plan?

**W3b) Does the plan address factors outside of directly operated plants?
If so, please state which factors your water management plan addresses**

W3c) What are the goals of the plan?

W3d) What activities are you considering in the plan?

W3e) Who is responsible for the plan?

Fig. 1: Questionnaire Responses by Sector

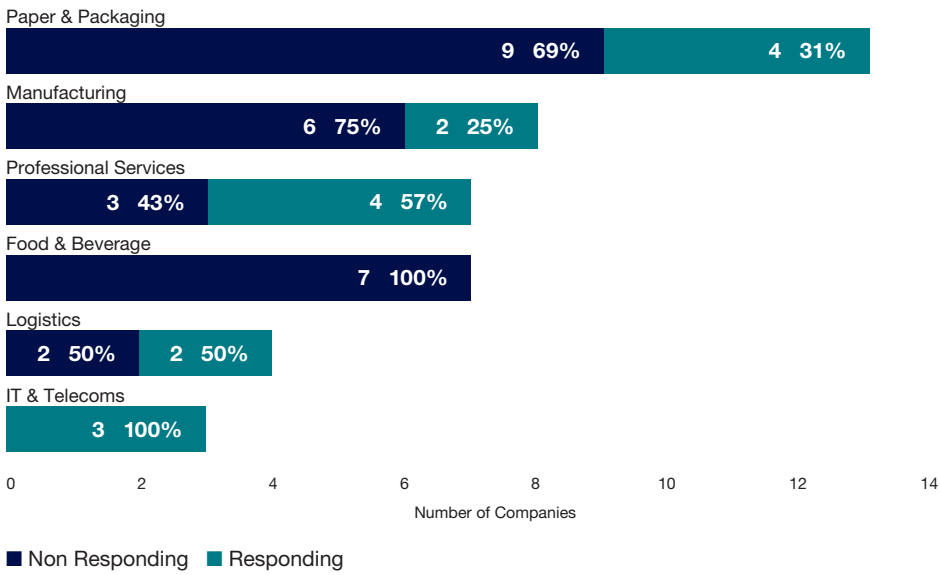


Fig. 2: Does water pose a risk (regulatory, reputational or physical) to your business?

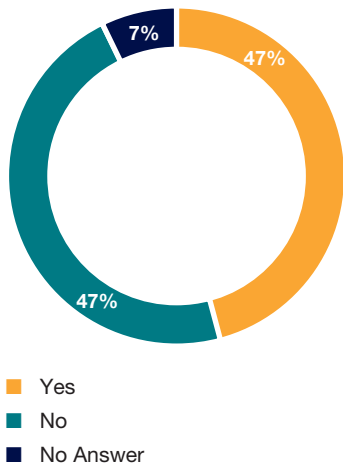


Fig. 3: Does water pose a risk (regulatory, reputational or physical) to your supply chain?

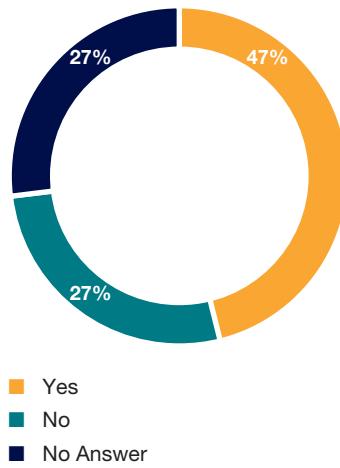


Fig. 4: Do water-related aspects of climate change present opportunities?

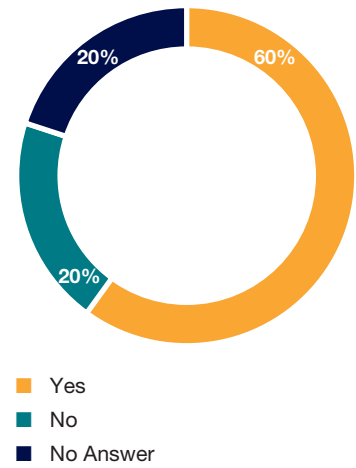
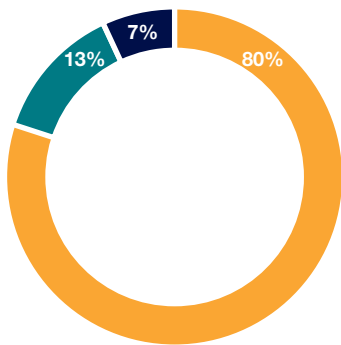
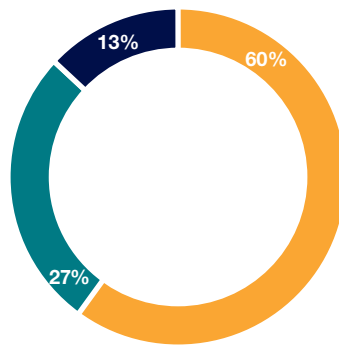


Fig. 5: Able to provide data for the total water used in your own operations?



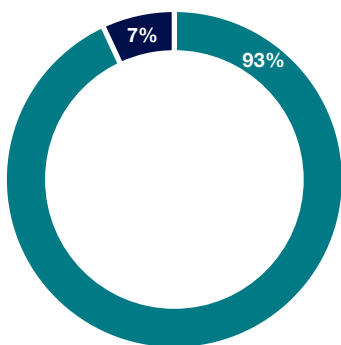
- Yes
- No
- No Answer

Fig. 6: Able to identify which of your operations are in water-stressed regions?



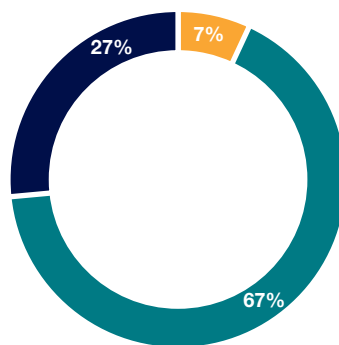
- Yes
- No
- No Answer

Fig. 7: Able to provide data for the total water used by your tier 1 suppliers?



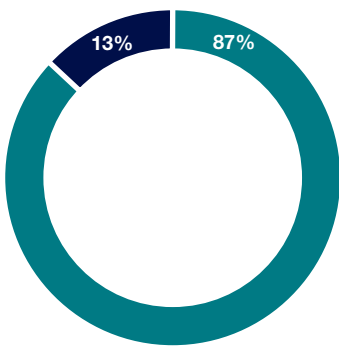
- Yes
- No
- No Answer

Fig. 8: Able to provide data for the total water used in your upstream supply chain?



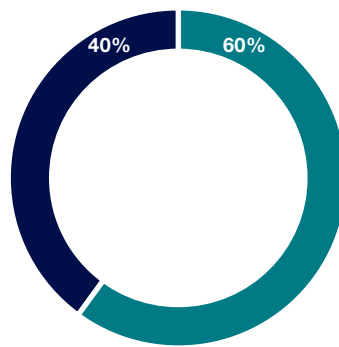
- Yes
- No
- No Answer

Fig. 9: Able to identify which of your tier 1 suppliers are operating in water-stressed regions?



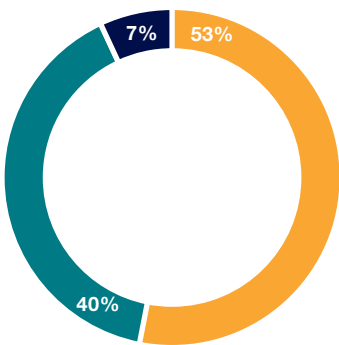
■ Yes
■ No
■ No Answer

Fig. 10: Able to identify how much of your total upstream supply chain raw materials come from water-stressed regions?



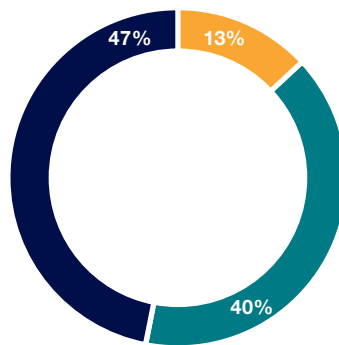
■ Yes
■ No
■ No Answer

Fig. 11: Does your company have a water management plan?



■ Yes
■ No
■ No Answer

Fig. 12: Does the plan address factors outside of directly operated plants?



■ Yes
■ No
■ No Answer



11

Appendix II: Associated Bodies & Related Readings

This Appendix is not intended to provide an exhaustive compendium of the key stakeholders engaged in the water debate nor to represent a list of highly recommended publications; rather it is intended to provide a brief summary for those readers who have not kept fully astride of developments in the debate.

The **CEO Water Mandate** was launched in July 2007 and is a unique public-private initiative designed to assist companies in the development, implementation and disclosure of water sustainability policies and practices.

- “Water Disclosure 2.0 – Assessment of Current and Emerging Corporate Water Reporting”, The CEO Water Mandate, March 2009

The **UN Global Compact** is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption.

The **Pacific Institute** is a nonpartisan research institute that works to advance environmental protection, economic development, and social equity.

The **WWF** is a global non-profit foundation based in Gland, Switzerland and is actively contributing to delivering freshwater projects and programmes around the world.

- “Investigating Shared Risk in Water: Corporate Engagement with the Public Policy Process”, WWF, March 2009

The **Water Footprint Network** is a network of academic institutions, government agencies, NGOs and businesses aimed at advancing the promoting the transition towards sustainable, fair and efficient use of fresh water resources worldwide.

The **UNESCO-IHE Institute for Water Education** is an international institute for water education that was established in 2003.

- “Water Footprints of Nations”, UNESCO-IHE, November 2004

CERES is a national network of investors, environmental organizations and other public interest groups working with companies and investors to address sustainability challenges such as global climate change.

- “Water Scarcity & Climate Change: Growing Risks for Businesses and Investors”, CERES, February 2009

The **World Business Council for Sustainable Development (WBCSD)** is a CEO-led, global association of some 200 companies dealing exclusively with business and sustainable development.

- “Business in the World of Water”, WBCSD, August 2006

The **World Economic Forum** is an independent international organization committed to improving the state of the world by engaging leaders in partnerships to shape global, regional and industry agendas. The Forum’s Water Initiative is a two year program with three workstreams: to raise awareness in the business and government community of the challenge we face to manage our future water needs; to help in the development of improved water management analyses, metrics and tools; and to catalyse a series of public private partnerships that help illustrate potential future solutions. More information can be found via www.weforum.org/water.

The **Global Reporting Initiative (GRI)** is a large multi-stakeholder network whose mission is to create conditions for the transparent and reliable exchange of sustainability information through the development and continuous improvement of the GRI Sustainability Reporting Framework.

Other Reports

- “Watching Water: a guide to evaluating corporate risks in a thirsty world”, **JP Morgan**, April 2008

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