

The CEO Water Mandate

Shared Water Challenges and Interests:

The Case for Private Sector Engagement in Water Policy and Management

Discussion Paper June 2014







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The United Nations 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 non-profit sustainability research organization that works to advance environmental protection, economic development, and social equity. The Institute is widely-recognized as a global thought leader regarding water and sustainability.

Together, the UN Global Compact and Pacific Institute comprise the CEO Water Mandate Secretariat. The CEO Water Mandate is a unique public-private initiative – established by the UN Secretary General in 2007 and now endorsed by more than 100 companies from a variety of industry sectors – designed to assist companies in the development, implementation, and disclosure of water sustainability policies and practices.

WWF is one of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

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Shared Water Challenges and Interests: The Case for Private Sector Engagement in Water Policy and Management

CEO Water Mandate and WWF International Discussion Paper

June 2014

Introduction

Emerging debates on the appropriate role of business in water policy and management Industry relies on fresh water directly to manufacture goods, and it relies on water indirectly in the production of supplies. Water is used as a solvent and cleaning agent, to cool industrial and energy generation processes, to dilute contaminants, to irrigate crops, and to extract fossil fuels, and as a key ingredient in many products, among many other uses. In almost all of these examples, water is non-substitutable. Because of pronounced water scarcity, pollution, inadequate management systems, and associated challenges in a growing number of regions around the world, many businesses are making the strategic decision to promote and invest in improved water resource management (CDP 2012, Ceres 2009). Their decisions are based on their growing understanding that water risks are caused not only by a company's own water use and pollution, but also by the watershed context in which a company operates.

The CEO Water Mandate seeks to articulate the business case for sustainable water management, develop good practice guidance, and convene multi-stakeholder working conferences to identify and encourage good policies and practices for corporate water stewardship. The Mandate posits that not only can companies contribute significantly to achieving more sustainable and effective water management, but that in many areas their participation is in fact vital—particularly in emerging markets of the "developing" world or Global South, where government capacity and resources are limited.

Importantly, this new corporate water stewardship agenda is finding growing acceptance by governments and public policy leaders in both developed and developing countries. Increasingly, traditional state actors recognize that water and related challenges (e.g., sanitation) are too complex and daunting for governments to solve alone—collaboration will be required in the quest to achieve water security, on the local and global levels.

Companies will respond to water challenges differently, depending upon the area, sector, resources and levels of risk. While many companies will seek solely to improve their water-use efficiency and ensure adequate wastewater treatment in their operations, others may go beyond their "factory fence-lines" to encourage and facilitate more sustainable water management throughout their supply chain and to engage in the watersheds in which they operate (Pegram et al. 2009, Newborne and Mason 2012, Morrison et al. 2010). The focus of this discussion paper are these companies that engage externally to address water risks through a variety of means (often as a collective action with NGOs, government agencies, other businesses, etc.), including:

- Facilitating water-use efficiency and pollution reduction measures of others in their watershed.
- Advocating for efficient, equitable, and ecologically sustainable water policies and practices at local, national, and international levels.
- Sharing data and information to improve public water management.
- Investing in public water infrastructure expansions or upgrades.

- Using internal facilities to meet local water supply and treatment needs.
- Using financial and technical resources to support local water institutions in catchment planning and management.
- Supplementing infrastructure to ensure local supply to communities and industry (Morrison et al. 2010).

The stated objective of these "beyond the fence-line" engagement strategies, often collectively referred to as "policy engagement" (Morrison et al. 2010), is to reduce business risk by supporting a stable business environment and ensuring consistent access to water supplies. Ideally this strengthens a company's license to operate and builds its standing amongst relevant stakeholders. These efforts also seek to identify and reduce the company's adverse impacts on a region's water-related challenges. Such strategies are grounded in the premise that they advance the public interest and are mutually beneficial to companies, their stakeholders, and other actors in the watershed. This premise, in turn, stems from the idea that many water-related challenges, such as scarcity, pollution, inadequate infrastructure, insufficient management capacity, and climate change, affect a wide range of actors and are shared among companies, governments, civil society, communities, and others (Pegram et al. 2009).

While many companies are beginning to engage in water policy as a key element of their water-management strategies, some NGOs and academics are calling into question whether such strategies truly advance the public interest. Some, such as the Public Services International Research Unit (PSIRU), as detailed in its article "Conflicts, Companies, Human Rights and Water—A Critical Review of Local Corporate Practices and Global Corporate Initiatives," argue that these strategies in reality perpetuate a history of undue corporate influence on public policy that subverts the public interest in favor of corporate profit (Hall and Lobina 2012). This argument is based largely on the interrelated notions that:

- Companies do not have an economic incentive to promote sustainable conditions beyond their fence-lines (apart from public relations gains).
- Companies have an interest in weak water-related governance, which allows them to continue socially and environmentally harmful, yet profitable, practices; consequently, companies strive to undermine democratic processes.
- Water challenges are not "shared"; many issues that companies consider risks, namely regulation, are actually a boon to communities and ecosystems.

This article sets out to provide nuance to these notions and in some instances outright challenge them.² It acknowledges the real threat of corporate policy capture and "greenwashing," as well as the inherent asymmetries in conceptions and realities of water risk. However, the paper argues that current conditions actually offer a much greater incentive for companies to align their water-related policies and practices with the public interest than in the past. A great opportunity exists for companies, governments, civil society groups, communities, and others to collaborate to achieve shared water-

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¹ Further explanation of and operational guidance on this topic were captured within the Mandate's 2010 report *Guide to Responsible Business Engagement with Water Policy*. Further guidance, specifically on how and when companies should partner with governments, NGOs, communities, businesses, and others on shared challenges can be found in the Mandate's 2012 *Guide to Water-Related Collective Action*.

² It is important to note that the debate on shared risk is separate and distinct from critiques of the privatization of water service provision. The privatization debate focuses on the legitimacy of private sector companies (as opposed to public agencies) being tasked with the delivery of water services (Gleick et al. 2002). The debate being explored here, in contrast, focuses on the role of private companies that use large volumes of water and/or cause water pollution, and as a result are exacerbating or potentially solving local water-related challenges.

related objectives. Such collective-action undertakings should be encouraged if they are conducted in a way that advances the public interest and aligns with global sustainable development goals. This potential lies at the heart of what has been referred to as the "shared risk proposition." It makes feasible the prospect of better aligning water challenges as shared objectives with mutually-beneficial outcomes, as opposed to each stakeholder "fighting its corner" to the detriment of the others.

Further, we posit that discouraging or preventing companies from contributing to sustainable water management in cases where they have a clear and demonstrable interest in doing so, and where they have access to vast resources that would not otherwise be available, is actually a significant detriment and threat to effective water governance, sustainable development, and economic growth. The moral imperative here is not to forcibly remove companies with wasteful water-related practices from water-scarce regions, but to demand that they implement optimal water-related practices and make positive contributions to local water resource management and governance. The moral imperative is not to exclude companies from contributing to water management efforts, but rather (1) to insist that they operate in a manner that is welcomed by local stakeholders and that justifies their presence and (2) to assist them in doing so.

The business case for investing in sustainable water management

Questioning the business incentive for action

One critique against a private sector role in advancing sustainable water management suggests that companies do not have an economic incentive to engage and therefore cannot be relied upon to fulfill this role (Hall and Lobina 2012). This argument suggests that company efforts to mitigate adverse impacts caused by their operations or to advance sustainable water management more generally by, for example, investing in improving the water-use efficiency of other actors or facilitating aquifer recharge schemes, are simply "greenwash." That is, they are pursued to create the appearance of a responsible business for public relations gains, but they lack a good-faith effort to advance the public interest. The PSIRU article, referring to a Coca-Cola project aimed at recharging aquifers in India, states:

Although increasing recharge of aquifers is a genuine way of reducing local water stress, these initiatives are not sustainable ways of delivering it. The companies do not have any direct economic incentive to fund such recharges—the economic return is a public relations gain from being seen to act responsibly. In effect, the incentive for water efficiency is created entirely by public campaigns against the abstractions, and by general public and political pressure for greater environmental responsibility (Hall and Lobina 2012).

This argument rightly implies that corporate initiatives driven purely by public relations motives cannot be relied upon as a long-term solution to water sustainability challenges. There is no evidence to suggest that companies will behave in this manner consistently and reliably over the long term. However, this argument also suggests that corporate water sustainability efforts are driven solely by the desire to be perceived as responsible, despite growing evidence to the contrary (see CDP 2012). It overlooks the wide range of water-related business risks that create strong economic incentives for companies to invest in more sustainable water management throughout their supply chains and in the watersheds in which they operate as a means of promoting water security and long-term business viability (Pegram et al. 2009, Hepworth 2012, Ceres 2009, Larson et al. 2012). Moreover, it has been shown that real economic advantages can result from improving water-use efficiency or reducing the volume of wastewater produced that must then be treated (Ceres 2009).

Lastly, this argument does not consider the obvious fact that public relations gains, especially for global consumer-facing brands, are of direct economic value to companies. Companies with a good reputation

among the general public are more likely to attract sustainability-minded consumers and investors. This PR element certainly does not eliminate the potential for greenwashing, but it undermines the notion that we cannot rely on companies to maintain policies and practices that improve their reputation substantially. Again, the imperative here is not to discourage these practices, but to enhance our ability to differentiate between legitimate, positive actions and greenwash, so that we can reward companies enacting meaningful change.

Unsustainable water conditions and business risk

But do companies really have an interest in robust water governance and sustainable water management, apart from the public relations gains?

A large and growing body of research says yes—they do. Water-related business risks are driven as much, if not more, by unsustainable watershed conditions beyond a company's fence-lines, such as water scarcity or pollution, as they are by the company's water-related performance (Pegram et al. 2009, Larson et al. 2012, Morrison et al. 2010). Case in point: An ultra water-efficient factory located in a region of severe water shortage or facing other water-related challenges can still face significant water risk. In 2012, 53% of Global 500 companies responding to CDP Water Disclosure³ reported that they have experienced detrimental water-related impacts in the last five years, while 68% identified water as a risk to their business (CDP 2012).

These data points reflect trends and real incidents that are changing how companies view their water management strategies—internal efforts to drive operational efficiencies are no longer seen as an endgame of sustainability performance. The external basin conditions and contexts, where water risk ultimately resides, necessitate a more long-term view. It is this new awareness, along with the reality that a business's water-related challenges can be fully addressed only through external engagement beyond the factory fence-line, that is being captured under the emerging paradigm of "water stewardship" (Hepworth and Orr 2013).

A lack of water in the most basic sense limits the amount of water a company can use and therefore the amount of goods it can produce. For example, in 2011, Gap Inc. cut its annual profit forecast by 22% because of production limitations driven by water shortages in Texas, India, Pakistan, and Brazil (Larson et al. 2012). Water scarcity also has secondary impacts on business, with significant implications, for example, on the production of energy on which industry relies. In 2001, energy production in São Paulo, Brazil, was highly constrained as a result of both severe drought and government energy tariff policies (CLSA 2006). To prevent blackouts, the government imposed quotas aimed at reducing energy consumption by 10%–35%. Many industries based in Brazil's southeast were plagued by reductions in operational capacity, production delays, or increased production costs (CLSA 2006). Additionally, for many industries, degraded ambient water quality increases the level of treatment, and therefore cost, required to purify water to appropriate levels for industrial production (JPMorgan 2008).

Societal expectations for corporate sustainability, including efficient and responsible water-related policies and practices, are also on the rise. Companies perceived to mismanage scarce water resources are likely to suffer damaged reputations, especially when their operations negatively affect basic human and environmental needs or contravene legal requirements. For example, effective advocacy campaigns

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³ CDP (Carbon Disclosure Project) is an NGO based in the United Kingdom that leverages market forces such as investors, customers, and governments to incentivize companies and cities across the world to measure and disclose information on their environmental and sustainability performance, including that related to water management.

in India have already forced Coca-Cola to close its plant in Plachimada, Kerala, and recommended it pay \$48 million in damages due to the belief that Coca-Cola's groundwater pumping hindered communities' ability to extract the water needed to maintain their livelihoods (India Resource Center 2010). A loss of goodwill such as this can be a real economic loss.

Furthermore, consumers increasingly choose products based on the perceived sustainability and social responsibility of companies' practices and policies. In the United Kingdom, expenditure on ethical goods and services has tripled in the last decade (The Co-Operative Bank 2009). Eighty-one percent of Koreans, 70% of Singaporeans, and nearly half of British consumers are willing to pay a premium for environmentally friendly products (Czarnowski 2009).

Companies perceived to have better water-related practices may thus see improved brand value and a subsequent expansion in sales. The Alliance for Water Stewardship's (AWS) April 2014 release of its standard for water stewardship suggests that stakeholders' ability to assess the adequacy of a company's water-related activities is arriving quickly. Furthermore, the financial community is increasingly seeking to invest in companies that are managing short- and long-term water-related risks and that are striving to meet stakeholder expectations on water. Shareholder resolutions on water—mostly focused on the food, beverage, oil, and chemical industries—more than quadrupled over the past ten years (Ceres 2009).

Ensuing water-related development challenges, together with the changing landscape of stakeholder expectations, are creating very real economic incentives for companies to behave in a manner that is deemed responsible. It would be short-sighted and unwise to dismiss these potentially paradigm-shifting levers toward corporate sustainability because they mark a divergence from previous corporate actions—especially when such a divergence is exactly what the CEO Water Mandate, PSIRU, WWF International, and others are calling for. Instead, we should ask how these new levers can drive changes that benefit business, communities, and ecosystems alike, and how we can avoid one-sided outcomes and the greenwash that undermines such opportunities.

<u>Do businesses and other watershed actors have a shared interest in robust governance and sustainable</u> water management?

Although businesses, communities, ecosystems, governments, and others may face common water-related challenges, they still may not share an interest in the same solutions to such challenges. Indeed, this is another core argument made by those skeptical of a meaningful private sector role in driving more sustainable water management. Considering the notion of regulatory water-related business risks, for instance, PSIRU contends that:

For communities and ecosystems, regulation is not a risk but a positive opportunity for democratic and peaceful limitation of competing (including corporate) behavior. By contrast, the [CEO Water Mandate's work] has the anti-democratic implication that companies would be subject to less risks if there was no democratic government and no civil society.

Despite the fact that this is an obvious misrepresentation of the CEO Water Mandate's conceptualization of regulatory risk—on the Mandate's website regulatory risk is defined as "risk [that] stems from changing, ineffective, poorly implemented, and inconsistent water policy and regulations" and includes cases where "local governments do not have the capacity to consistently deliver high-quality water to local industries and agricultural growers"—the criticism is, at least in part, a valid argument. Companies can be negatively affected by strict regulations that limit their activities and thus they often consider such regulations a business risk (as would, for that matter, a local agricultural

grower facing a rationing of water allocations). In the 2012 *CDP Global Water Report*, 51% of companies consider "tightening withdrawal limits" a risk, while 30% consider "restricted water operational permits" a risk (CDP 2012).

However, water-intensive companies are also negatively affected by a lack of regulation on other actors in their watershed—a lack that eventually leads to the depletion or degradation of a shared resource. This creates a not uncommon scenario in which a wide range of actors using a common pool resource are threatened both by the possibility of their own resource use being regulated and by the unregulated resource use of others.

Regulation that is coherent and consistently applied is positive for society and reduces risk to business. We live in a world where ecosystems and communities do face regulatory risks when government fails to regulate polluters, allocations, permits, fines, fees, and use, or to oversee and manage the socioeconomic trade-offs inherent in particularly stressed basins. Water-using companies are similarly negatively affected by such poor public management and oversight. The same CDP report mentioned earlier found that 54% of companies responding consider "regulatory uncertainty" a risk (CDP 2012). Nonetheless, for detractors to suggest that risks would be lower for companies if government and civil society were silent or absent truly misses the point. We recognize that some companies have a long history of polluting waterways, have failed to meet minimum legal requirements, or have operated where the rules of the game are poorly enforced—and that companies have benefited from these situations. Such companies should be exposed and duly penalized.

Yet even in those parts of the world where the rules are the most lax or where the issue of water pollution, for example, is most acute, things are changing. Companies increasingly see higher risk where effective water governance is not in place. There is mounting evidence that some companies actually seek clear and consistent regulatory signals and policies, where coherence allows them to plan, protect, and avoid negative impacts (Pegram et al. 2009). As expressed in the 2012 CDP report, companies may indeed complain when they do not have enough water to operate their facilities, yet the alternative is exposure to wide criticism and fear of a regulatory response that can be draconian and reactive.

In Beilun, China, the local government is trying to balance the need for both industrial development and ecological protection. Local authorities have shut down more than 72 large-to-small factories which were failing to adhere to local water regulations (Shanghai Daily 2013). A similar picture is emerging all over the developing world, where because of the scale of the issue and lack of capacity, governments are closing down facilities that breach pollution controls. On the one hand, this creates a solution to an immediate problem, but it also creates the space for more engaged dialogue with companies seeking to adhere to rules and comply with local standards. These companies want to ensure a license to operate, and that license—social and legal—is increasingly predicated on playing by the rules or (where rules are not in place) on adhering to the best practices as defined internationally.

Take, for example a Coca-Cola plant in the village of Kaladera, Rajasthan in India. The plant is located in a watershed experiencing groundwater depletion reportedly leading to increased irrigation costs for local growers, reduced availability of drinking water, and reduced milk yield (TERI 2008). The Coca-Cola plant, established in 1999, was certainly a prominent groundwater user during a time of concerning groundwater depletion. However, in 1998, before the Coca-Cola plant was operational, the Central Ground Water Board had already deemed the area "overexploited" (TERI 2008). Indeed, groundwater depletion in Kaladera has coincided not only with Coca-Cola's presence, but also with a shift toward water-intensive crops and increased overall agricultural water use, rising water demand due to

population growth, and urbanization (TERI 2008). In 2006, groundwater extraction in the Kaladera area was 135% of the natural recharge rate, with agricultural water use alone accounting for more than 100% of this (TERI 2008). The plant accounts for less than 3% of local water extraction 70% of the time, and less than 1% for 40% of the time (TERI 2008). Since it is a well-resourced and well-known actor that pumps substantial volumes of groundwater, local stakeholders deem Coca-Cola largely responsible for this problem and are calling for the closure of the plant.

Arguably, the core problem to be resolved in Kaladera is not the exploitation of water resources by one industrial water user, but the widespread overexploitation enabled by the lack of a functioning management regime to regulate the utilization of a limited, shared resource. A robust water governance system with direct regulatory oversight would incentivize widespread water-use efficiency and would deny permits to those unable to demonstrate responsible use. Coca-Cola has the financial and technical resources to facilitate and support such water governance. By contrast, shutting down the Coca-Cola plant may or may not slow the rate of groundwater depletion. Such closure would do little to solve the region's systemic long-term groundwater overdraft problem. The company has also been rolling out a "water neutrality" policy, which includes investing in watershed projects (e.g., rainwater harvesting) geared toward offsetting the amount of water used by the company. One could argue that in this situation, as with many similar to it, Coca-Cola has a very strong interest in ensuring that other water users in the area are efficient and that local government can manage water effectively so that more water is available for all and pressure on the company is diminished.

Do companies, communities, ecosystems, and others have a "shared risk" driven by water challenges? The belief that companies have an incentive to invest in sustainable water management beyond their fence-line is grounded in what has been referred to as "shared risk." Some have questioned the appropriateness of this term, knowing that companies, communities, and others all experience risk uniquely and that water risks are often distributed unevenly. However, the overarching concept that companies have a shared interest with the public for reliable water services and sustainable water management is gaining traction (Hepworth 2012, Newborne and Mason 2012). In Colombia, for example, the indigenous vegetation of mountainous upland ecosystems is being cleared to make room for agriculture and cattle grazing. Without this vegetation, which traps water and protects soil, there is greater sedimentation in local waterways that the downstream city of Bogota relies on for its water supply. In recent years, this sedimentation has severely degraded water quality in the area, raising treatment costs for the local water utility, residential users, and businesses, such as SABMiller's Bavaria, alike. To address these shared challenges, Bavaria has teamed up with The Nature Conservancy, other local NGOs, the Bogota water company, and government agencies to manage sedimentation issues (Water Futures Partnership 2013).

Today in Kenya, integrated approaches to water, energy, and land are being undertaken by a range of actors living and working in the Lake Naivasha region, including small landholders, major horticultural businesses, the tourism sector, and local, national, and international authorities. Lake Naivasha has experienced declines in water supply and quality due to a variety of causes. The multiple water challenges created risks for all water users who rely on healthy ecosystems for their livelihoods and future. Even though the export farmers had improved agricultural water-use efficiency to record levels, the cumulative impact of multiple water users had driven the lake to record low inflows. The consumer markets and retail companies purchasing Naivasha's produce faced high reputational risks due to their poor understanding of the water demands of their suppliers and the perceptions of their customers (ERD 2012).

The concept of shared water challenges was employed to bring users together to work closely on joint action plans, funding local water user associations, promoting and setting up reallocation plans, and creating incentives for government to better protect and manage the lake. These outcomes, supported and largely driven by the private sector, have been integral in advancing more sustainable management of the region. The underlying shared need for effective governance of the lake has united the stakeholders (WWF 2012). The Naivasha example illustrates that while the criticism of "shared risk" has focused mainly on multinational companies with visible brands, the private sector in Kenya was largely represented by Small and Medium Enterprises (SMEs). These companies, Kenyan and international, saw a clear business case for engaging proactively with other water users. The focus on stewardship, shared challenges, and collective action should not obscure the fact that most of the implementation of projects on the ground will be negotiated through SMEs—either because of supply-chain pressures around buyer protocol for stewardship or because SMEs are embedded in these local communities and understand the water situation and business case from multiple perspectives.

There are specific challenges in facilitating the shift toward seeing water challenges as shared, among them, the generally differing languages and expectations of various stakeholders around needs, timeframes, and modes of communication. To speak of "shared water risks" does not imply that water challenges create an equal and similar burden or sense of urgency for all stakeholders. It is necessary to ask: *risk of what and risk to whom*? The risk to an individual differs from societal or business risks, and certain groups will be more vulnerable than others. Water scarcity and pollution can be subjective in this sense. For a farmer, the danger may be back-to-back years of below-average rainfall. For the owner of a processing plant, the risk might be a temporary, sudden cessation of stream flow during peak operation time. For a government, risks might include the increasing costs of accessing water for utilities and the implications of higher energy costs, or failing to deliver on economic growth and development pathways because of poor water management (Orr and Cartwright 2010).

Rather, the concept of shared interest elevates local water challenges as shared problems—ones that can be addressed in proactive and collaborative ways. Consider the alternative to this, in which stakeholders facing similar challenges need not (or should not) speak to or engage with one another over shared resources and should only be ruled by government policy, regulation, and fines—leaving those operating in geographies absent of good water governance to fight over resources. Critiques against corporate engagement in water issues, knowingly or not, indirectly or directly, appear to advocate this alternative, yet collaboration and inclusion of all water users, including corporate and industrial actors, lies at the heart of water resource management and particularly integrated water resource management (IWRM)—the chief paradigm of reconciling water management challenges among shared users. Collaboration and integrated management also lie at the heart of the "soft path for water" approach (Gleick 2002, Wolff and Gleick 2002).

How do other water users benefit from private sector involvement?

Regardless of whether companies benefit from robust water governance, for the "shared water challenges" concept to function, water managers and those advocating for the public interest must themselves benefit from companies operating in a stressed watershed. Companies can provide vital employment and taxes for local communities, contribute to GDP and foreign exchange, and help governments deliver on poverty, growth, and development challenges. The example of Lake Naivasha showed that 10% of foreign exchange to Kenya could be linked to the output of the Naivasha's produce and horticulture trade (WWF 2012). Government saw how failure to address water challenges could not only drive business away from its jurisdiction to relocate somewhere else, but also feed the perception

that Kenya was an unstable place to do business, which in turn could undermine much needed foreign investment over the long term.

Companies can contribute to water management in simple yet beneficial ways. For example, they can provide sorely needed financial resources to address water losses, especially in places where water governance is weak and capital is limited. Sasol, a global integrated energy and chemicals company with its main production facilities in South Africa, has recognized water security as a material challenge to its operations, some of which are highly reliant on the inland Vaal River system. Sasol uses about 4% of the catchment yield while municipalities use approximately 30%, of which water losses can be as high as 45% because of the aging infrastructure (Greenwood et al. 2012). Sasol has approached a number of municipalities to implement water conservation initiatives (Greenwood et al. 2012). One such project, implemented in collaboration with GIZ and the Emfuleni municipality, used Sasol and GIZ funds to repair water leaks in roughly 60,000 households in Emfuleni (Sasol 2013). Water savings achieved through this project equate to roughly 10% of the annual water use of Sasol's Sasolburg facility or 2% of Sasol's total annual water use from the Vaal River System (Sasol 2013). Sasol's implementation of this beyond-thefence-line water strategy has created system-wide water savings and supported local water security to the benefit of all. It has also reduced water management costs for both local government and the business itself. This is a salient example of a win-win scenario, where the company was able to invest in the most cost-effective savings, and where private and public interests were fully aligned.

Companies can also help introduce new technology to improve water-use efficiency and water quality and collection of water-related data that supports informed water management decisions, and use privileged access to national decision-making processes that NGOs and small communities may lack. For example, Intel teamed up with the City of Chandler, Arizona, to devise a collaborative approach to water management that includes building an advanced reverse osmosis facility to treat rinse water from Intel's manufacturing facility to drinking water standards before being returned to the municipal groundwater source and nearby farmlands (Morrison et al. 2010).

The lack of financial, technological, and informational resources in many watersheds underscores the reality that current governmental expenditure and investment in sustainable water-resource management is low in many places across the globe (Ginneken et al. 2011, WaterAid 2011). In many cases, this may be due to corruption or a lack of awareness of the importance of sustainable water management. In other cases, it is because the government faces many competing demands for resources and policy attention and may lack the resources needed to manage water in a sustainable and equitable manner (WaterAid 2011).

PSIRU contends that the solution is to drive companies away from water-stressed basins and to exclude companies with "questionable environmental records" from dialogues and initiatives promoting corporate sustainability. While doing so may provide temporary relief or a brief moment of satisfaction, it will not pave the way toward a sustainable water future. In many areas, some degree of water stress in inevitable. Achieving sustainable water management necessitates that we better understand our shared objectives of healthy communities, a clean environment, and thriving industry, and learn how to accomplish them even in the face of water stress.

The CEO Water Mandate suggests that it is only through robust public water governance (which includes effective regulation of corporate practices) that sustainable water management can ultimately be achieved. While certainly companies have an obligation to (and an interest in) implementing sustainable and equitable operational practices, private sector businesses can and should also play a role in bridging

the public resource and capacity deficit, especially in the context of water stewardship initiatives and collaborative projects that harness the expertise, knowledge, and legitimacy of NGOs, academia, and government agencies. With the private sector in this role, however, we also must pay serious and careful attention to protecting the public interest, addressing equity concerns, and preventing "policy capture."

Using business resources while ensuring public interest outcomes and preventing policy capture

Critical to this debate is the question of how to use business resources toward mutually beneficial outcomes while ensuring that companies act in a manner that aligns with the public interest and that avoids undue influence. Though we see emerging incentives for companies to act in a responsible manner, there are also important and powerful conflicting interests and competing incentives that may lead to perverse and unbalanced outcomes (Morrison et al. 2010, Hepworth et al. 2010). However, these concerns should not overshadow the need to solve critical water challenges that affect us all. Rather, looking forward, corporate engagement with water issues should be founded upon an appreciation of the potential risks and perverse outcomes to communities, the environment, and others, and the reality that greater due diligence, dialogue, and transparency are essential to success.

Following is a list of some of the most salient tensions and barriers to beneficial private sector involvement in water policy and management. Explicitly recognizing these barriers can help us navigate them as we go forward.

Many companies will not actively promote stringent regulatory frameworks that increase operational costs, limit production, or significantly undermine company influence in water decision making. Tension exists between (a) a company's desire for a governance system that effectively manages others' water use (and therefore prevents water scarcity and pollution challenges) and (b) its desire to prevent limitations to its own water use or stringent guidelines on water quality that drive up operational costs. Such conflicting interests may not discourage company investment in or promotion of water-use efficiency among other water users in a particular basin, but they do call into question a company's incentive to meaningfully facilitate development of a governance scheme that could potentially limit its own production or increase operational costs. Similarly, while many companies may seek to implement projects that have public interest outcomes (e.g., addressing municipal nonrevenue water losses or riparian restoration/source water protection) and therefore build their reputation among local stakeholders, only the rare company will choose to promote water governance processes such that their own influence on water decision making is significantly lessened.

Companies are unlikely to be the leading advocates for prioritizing domestic water uses (i.e., meeting basic human needs) over their own water use

In light of the recently affirmed human rights to water and sanitation (United Nations 2010), water governance systems and legal frameworks in the 21st century are increasingly likely to include provisions that prioritize domestic and other water uses above those for industry. For example, the State Water Policy in Rajasthan (where Kaladera is located) stipulates that water allocations should be prioritized to drinking water, irrigation, power generation, and industry, in that order (Department of Water Resources 2000). While water uses to meet basic human needs are a clear societal priority (and in fact typically represent only a small proportion of water use in a basin), companies may not be inclined to proactively advocate for water management regimes that deprioritize their own water use. Thus, champions of such causes will typically need to come from other segments of society, including explicit government commitment.

The potential exists for greenwashing: company claims and/or industry initiatives that create the perception of responsible practice without tangible water sustainability or public interest outcomes As demonstrated in this paper, there are economic drivers for companies to invest in and promote sustainable water management inside and outside of their fencelines, such that watershed challenges and associated business risks are better managed. However, history also shows that some of these drivers, especially those regarding license to operate and brand value, can hinge on the perception of action, rather than genuine action itself. This leaves open the potential for greenwashing initiatives that foster a perception of good practice without any tangible benefits to the public interest. As the issue of water is tackled by a growing number of companies, we are likely to see a growing number of claims of stewardship and industry-led initiatives that serve a corporate social responsibility (CSR) agenda far more than they do a strategic one. The onus will be on many of the practitioners and NGOs that support corporate water stewardship, as well as on academics and peer businesses, to differentiate between spurious claims and substantive efforts. While many critics will use these examples as straw men to criticize all corporate action on water, the case for validating claims and auditing performance should create stronger accountability and monitoring toward genuine shared outcomes. It should be noted that the maturity and experience level of companies varies a great deal and that even within the same company, responses at basin level differ depending on the local situation.

Some investors and corporate executives may be prone to react to short-term pressures that conflict with sustainable water management and shy away from tackling long-term sustainability drivers. Much of the rationale behind shared water challenges and collective action implicitly hinges on companies' assessing and managing risk on a long-term time horizon. For instance, companies considering long-term business viability will be much more likely to invest in water-use efficiency measures and sustainable water supply than companies seeking to maximize profit in the near term. Likewise, many investors who have a short-term perspective and continue to orient around quarterly earnings statements may find it difficult to fathom the justification for a long-term engagement in water governance in a particular region, when that engagement will only garner positive results over a five-to ten-year time horizon. Even within a company, CSR and Sustainability departments may seek approvals for programs and corollary expenditure based on long-term considerations and planning only to be confronted by unsupportive senior executives and legal departments who are requiring shorter-term returns on investments.

Some business models and operational contexts may not offer strong drivers for action

A significant number of companies have strong incentives to ensure sustainable access to water in a single location over the long term. These businesses, such as geographically bound mining or oil and gas companies, typically must operate in particular locations to be economically viable. Furthermore, SMEs may not have the economic means to simply move away from water-stressed settings. Others, however, have greater flexibility in the location of their facilities and supply chain and may not intend to remain in one watershed for long. Such enterprises might be inclined to shift operations and supply chains away from water-challenged areas. As a result, they are less dependent on those regions, and their move perhaps even improves how they are perceived by some key stakeholders. This "move away from the problem" alternative undermines incentives for companies to make substantial long-term investments in improving water governance in water-stressed areas.

Moving forward: Unlocking corporate action on water that serves the public interest

The existence of competing economic incentives for long-term sustainable thinking and short-term profit motives reveals a number of complex and difficult questions facing the corporate water stewardship community, such as:

- Multinational companies in many cases are a great boon to local economies, in both developed and emerging economic contexts. What is the appropriate balance between "high economic value" water uses and public interest water uses?
- How can companies already driving sustainable action on water be encouraged to offer a louder voice within their value chain and in the wider business community?
- Should companies avoid operating in or sourcing from water-stressed regions, or rather maintain a presence in these areas, while making investments that address long-term water challenges?
- In many parts of the world, businesses and governments alike are complicit in a system that
 often results in unbalanced private sector representation in water policy. What role can and
 should companies play in facilitating more democratic processes (especially in areas of weak
 governance)?
- What can companies that are genuinely interested in facilitating sustainable water management do to ease the skepticism of potential partners?
- How can companies be encouraged to consider long-term profit drivers in the face of immediate short-term profit motives and shareholder pressures that may incentivize unsustainable practices?
- How can companies and others encourage increased investment in areas of water stress and weak water governance, when these are identified as "high-risk" locations?

These are difficult questions, and the conflicts inherent within them will certainly invite some to argue that companies should not play a meaningful role in public water management. It must be recognized, however, that companies have always engaged in water policy, and given the very significant challenges facing global water security, dogmatic stances for or against business engagement not only fail to reflect reality, but are likely to be counterproductive (Hepworth and Orr 2013). Instead, these tensions and questions should highlight the need to strengthen positive incentives for responsible and sustainable private sector action and begin a meaningful discussion on what that can and should look like, as the CEO Water Mandate and others in the water stewardship space are doing. Such a discussion can shed light on unsustainable practices where they exist, highlight examples of beneficial corporate action, and ultimately help determine the most appropriate role for the private sector in addressing our shared global water challenges in the 21st Century.

At this writing, the United Nations and the international community have embarked on an ambitious process to develop a Post-2015 Sustainable Development Framework that will very likely result in a set of Sustainable Development Goals ("SDGs") to replace the Millennium Develop Goals (MDGs) when they expire in 2015. It is widely expected that water and sanitation will find expression as either a standalone goal, or at the very least strongly integrated within other goals. Whatever the outcome, the ongoing process and negotiations reveal a strong conviction by governments that the private sector will have a critical role to play in collaborating with the public sector and civil society with respect to water solutions in the future. This belief was made abundantly clear during the special session on water and sanitation convened by the UN General Assembly on 18 February 2014. Following an opening address by the UN Secretary-General in which he highlighted the CEO Water Mandate as a public-private collaboration platform, UN Member States engaged in a two-day discussion and dialogue during which

the importance of partnering with the business community was repeatedly emphasized (UN General Assembly, "Water, Sanitation, and Sustainable Energy," 18 February 2014).

In summary, there is compelling evidence to suggest that business's role should not be limited to simply implementing operational efficiencies and being accountable for direct water-related adverse impacts on ecosystems and communities; it should be expanded such that companies are encouraged, if not expected, to make a positive contribution to broader watershed challenges that affect a wide range of stakeholders and actors.

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