

CDP Water Disclosure 2010 South Africa Focus

On behalf of 137 investors with assets of US\$16 trillion



Report written for
Carbon Disclosure Project by:



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Partner Foreword and Introduction

Foreword

The National Business Initiative is in its fourth year of partnership with the Carbon Disclosure Project and this has been a very successful vehicle for encouraging leading South African companies not only to disclose their emissions but to take responsible action in response to their collation of data and its implications.

We applaud the companies who have responded to the first global request to participate in CDP Water Disclosure as well as those from outside the target sample who, recognising the importance and risks associated with water in South Africa, have responded on a purely voluntary basis. In so doing they have initiated action by business to scrutinise their vulnerabilities and responsibilities with regard to the socioeconomic and environmental importance of water, not only for their own operations but those of their supply chains and surrounding communities. This report presents the first collective step by business in South Africa to address important questions around water management and governance, risks and opportunities and water accounting.

Valerie Geen

Director for Climate and Energy, National Business Initiative

Introduction

CDP Water Disclosure replicates and builds on the tried-and-trusted methodology and process that the Carbon Disclosure Project (CDP) has used for carbon and climate change since 2003. Backed by 137 institutional investors representing \$16 trillion in assets, this year CDP sent its first annual water questionnaire to 302 of the world's 500 largest companies in the FTSE Global Equity Index Series, focusing on sectors that are water intensive or are particularly exposed to water-related risks.

Although water issues are as unique and varied as their local context, the overarching concern of water management is access: whether the appropriate quantity and quality of water is available for competing human users and for environmental health both now and in the future. The CDP Water Disclosure questionnaire brings insight into the challenges that this presents to companies by requesting information on their water strategies and management plans, on their water-related risks and opportunities, and on their water use within the context of local scarcity or abundance.

This report¹, prepared by Environmental Resources Management Ltd (ERM), focuses on water in the South African context. It examines the country's water resources, the likely impact of climate change on them and the legislative framework, as well as analysing the responses of South African companies to the CDP Water Disclosure 2010 questionnaire. While a total of 12 South African companies responded to the questionnaire, this statistical analysis includes only those companies that have chosen to make their responses publicly available. These responses are available to view at www.cdproject.net.

1. Please see the Important Notice on the inside back cover of this report regarding its content and use.

South Africa Focus

South Africa's available freshwater resources are already almost fully-utilized and under stress. At current projected population growth and economic development rates, it is unlikely that the growth in demand for water resources in South Africa can continue to be met. Water thus has the potential to become the limiting resource to the country's economic development. This report examines South Africa's water resources, how they might be affected by climate change, the legislative context, and how business in South Africa is beginning to respond to the challenge.

Water in context – how does South Africa fit into the global water picture?

South Africa is an arid country with only 8.6% of annual rainfall becoming available as surface water, one of the lowest conversion ratios in the world. This runoff is unevenly distributed both geographically and over time, with great annual variability in rainfall. South Africa's groundwater resources are also relatively limited compared to global averages.

This water scarcity and unpredictability is compounded by the pollution of surface- and ground-water resources by industrial effluents, domestic and commercial sewage, acid mine drainage, agricultural runoff, and litter.

The country's total renewable water resource is 1,048 m³ per person or about 13% of the global average of 8,210 m³ per person. A country is said to experience "water stress" when annual water supplies drop below 1,700 m³ per person. When this level falls to between 1,700 and 1,000 m³ per person, periodic or limited water shortages can be expected. When annual water supplies drop below 1,000 m³ per person, the country faces water scarcity. Coupled with this, South Africa uses about 25% of its renewable freshwater resources per annum, with use in excess of 10% typically seen as a cause of water stress in a given locality.

Water resources are amalgamated into 19 Water Management Areas (WMAs) across the country. A significant amount of water is transferred between these WMAs and also from South Africa's neighbors. Inter-Basin Transfer (IBT) of water has long been seen as the solution to water scarcity in South Africa, and of the nine provinces whose water supplies are bolstered by transfers, eight are reliant on IBT for more than 50% of their annual supply. It has been reported that Gauteng Province, which supports around 25% of South Africa's population and generates around 10% of the economic output of the entire African continent, is 100% reliant on IBT for its water supply.

South Africa is looking to other countries such as Lesotho to help meet its projected demand for water, though there are clearly risks associated with dependence on extra-territorial supply of arguably the key national resource.

How exposed is South Africa to climate change?

Although the overall impact of climate change on water resources is uncertain and will vary significantly from region to region, evidence suggests that average temperatures in South Africa will rise and rainfall patterns will change. These changes are likely to result in greater evaporative losses from dams and soils, and a greater risk of algal blooms. Reduced freshwater flow in rivers will also reduce the size of estuaries and be harmful to their ecosystems (and therefore the populations that rely on them), and will reduce the dilution of wastewater discharged into rivers. This, in turn, will increase the already intense pollution in the coastal zone.

Recent studies have shown that South Africa could face a water supply gap of between 17% and 25% by 2030 assuming that water withdrawal for irrigation does not increase. South African agriculture and municipal water supplies are highly dependent on rainfall, but current models indicate that climate change will lead to lower average rainfall and a reduction in water availability of approximately 10%. Given the importance of South Africa's agricultural sector to food security in Southern Africa, any reduction in rainfall could have serious implications for the region. South Africa is clearly highly sensitive to climate change impacts, and management of the existing supply will be key to mitigating the impacts of rising temperatures.

1. The Market as a Driver or Constraint in the Move Towards Renewable Energy in Southern Africa, Touchstone Resources, July 2009.
2. Inland Water: Background Research Paper produced for the South Africa Environment Outlook report on behalf of the Department of Environmental Affairs and Tourism, SRK Consulting, October 2005.
3. Environmental Affairs and Tourism, SRK Consulting, October 2005.
4. Nedbank Sustainability Outlook, Edition 1, Nedbank, August/September 2010.
5. The Market as a Driver or Constraint in the Move Towards Renewable Energy in Southern Africa, Touchstone Resources, July 2009.

What is the legislative framework around water in South Africa?

Since 1994, there has been significant progress in the development of South African policy and legal frameworks regarding water resources. The National Water Act stipulates that the government is the trustee of the nation’s water resources and that it must act in the public interest to ensure that water is “protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner for the benefit of all persons”. It also recognizes the limits to the proposed solutions of constructing new dams and increasing water transfer, and strongly advocates demand management approaches. Finally, the act makes a provision for a “reserve” of water “to protect the ecological functioning of aquatic ecosystems before water uses such as industry or agriculture can be authorized”.

South Africa’s main approach to addressing water issues is one of integrated water resource management. A key principle of this is the need to balance protection of water resources with social and economic development, and the only two guaranteed entitlements to water are for the ecological reserve and to meet basic human needs.

South African companies’ responses to CDP Water Disclosure

The South African response to CDP Water Disclosure has been extremely positive, with all six of the companies listed on the Johannesburg Stock Exchange from CDP’s global target sample (of 302 companies) submitting responses, and a further six South African companies responding on a purely voluntary basis. The fact that almost a quarter of all voluntary submissions have come from South Africa indicates how seriously the issue is felt. Of these 12 companies, eight responded publicly and are included in the following analysis.

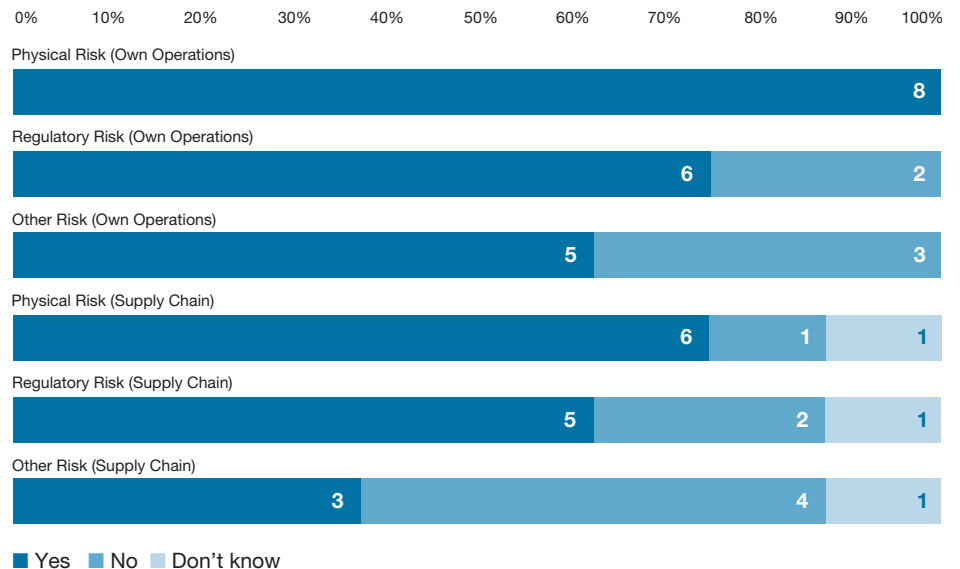
The following companies either register themselves as South African in the response, or are listed on the Johannesburg Stock Exchange:

Companies from target sample	Volunteers
Anglo American	Eskom
Anglo Platinum	Exxaro Resources
AngloGold Ashanti	Impala Platinum
British American Tobacco	Nedbank
SABMiller	Northam Platinum
Sasol	Woolworths Holdings

All eight publicly responding companies (shown in blue above) reported that their own operations are susceptible to significant physical risks (compared to 48% of global respondents). Six (75%) also reported significant physical risks to their supply chain (compared to 35% of global respondents), illustrating that the vulnerability is widespread and acknowledged by procuring companies.

This vulnerability is further reflected by the fact that all but one company (88%) reported having suffered a detrimental impact from water in the last five years (compared to 39% globally). These impacts include flooding, water shortages leading to power cuts and interruptions to supplies of key inputs.

Risks Identified



However, the challenging environment facing South African companies has prompted a stronger response than seen elsewhere. All of the respondents have a water policy, strategy or management plan which falls under the direct oversight of the board or a subset thereof. Further, 88% of respondents have set a specific water target (compared to 59% globally), although all but one of these targets is efficiency related and none seeks the absolute reduction in water use that will be vital to the successful management of the country's water resources. Nevertheless, the indication is that South African companies are alert to water challenges and are putting in place the necessary management structures.

It is clear that South African companies are evaluating water risks with an eye to extracting the opportunity as 88% identify water-related opportunities (compared to 62% globally). In South Africa, these opportunities range from infrastructure improvement projects to increased recycling and wastewater reclamation in mining operations.

"Our water strategy is based on the 5Rs (pRotect, Reduce, Reuse, Recycle and Redistribute), a comprehensive, risk-based approach to managing water in our business and in the value chain. This model provides a consistent approach, recognizing the different local issues and circumstances faced by each of our businesses."

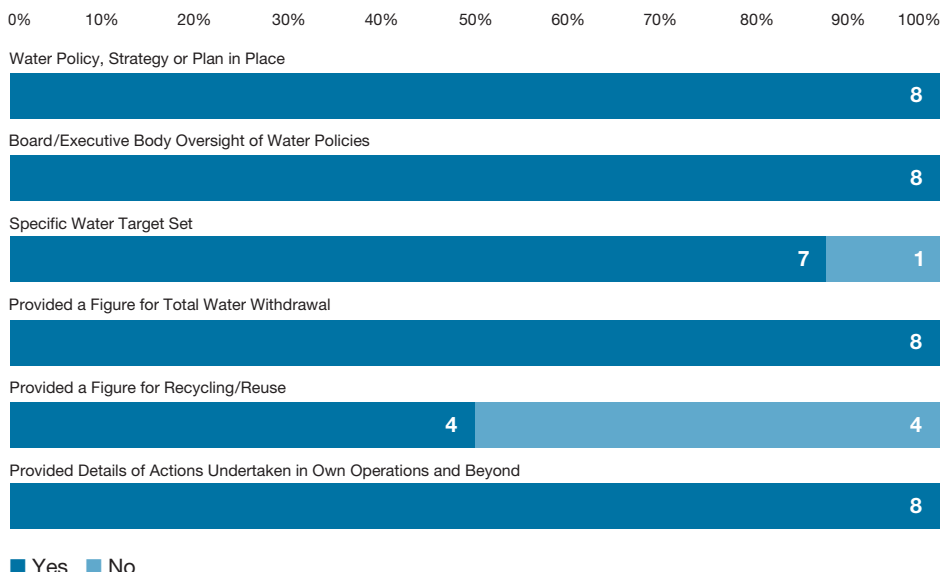
SABMiller

"Northam endeavors to run a zero discharge operation and closely monitors any potential impacts of its operations on surface and groundwater sources."

Northam Platinum

"In March 2009, we launched The Anglo Environment Way (AEW), which sets out a consistent approach to responsible environmental management, supporting our vision for minimizing harm to the environment by designing, operating and eventually closing all of our operations in an environmentally responsible manner. The Anglo Environmental Way includes 10 performance standards, which apply to all managed activities across the world. One of these is a Water Performance Standard."

Response Summary



Anglo American

“We will continue to ensure that our business and supply chain activity conserves our precious water resources. This effort is an important part of our commitment to sustainable business practices and forms part of our Good business journey – our long term plan to help people and planet.”

Woolworths Holdings

ERM’s view on how South African companies should be thinking about water management

The current and future challenges in South Africa with regard to water are clear, and the earlier action is taken, the more positive an effect it will have. Forward thinking companies in South Africa should be considering the following with respect to water management:

1. Developing an accurate water consumption baseline against which future performance can be measured
2. Mapping out risks and vulnerabilities with regards to water supply and quality both at the site level and in the supply chain
3. Instituting measures and incentives to drive efficient use of water not only in own operations but in the communities where they operate
4. Pricing water effectively into capital expenditure programs, incorporating the current and future costs of withdrawal into accounting processes
5. Engaging with community and governmental stakeholders around water management issues, identifying opportunities for knowledge transfer where possible/feasible
6. Building adaptive capacity with regard to the physical impacts of climate change, for example by building aqueducts
7. Seeking opportunities to work collaboratively with other companies and through partnerships with other stakeholders over water management and R&D, in order to help mitigate the impacts of water scarcity and strengthen the reputation of the company in a highly scrutinised market.

The scale of the challenge is only starting to become clear, and as it does so the need for action will become more pressing. Companies with operations in South Africa would be well advised to begin work on adaptation and mitigation strategies before negative business and social impacts begin to tell, not only to safeguard business interests but also those of the South African people who share a highly stressed water supply.

Water stress in South Africa will not disappear. There is no magic fix. South African companies can reduce the burden on the existing supplies by starting to implement best practice measures in their business. Part of this is accurate and comprehensive reporting, not only to disclose withdrawals and recycling rates, but also to share good practice, enhance reputation, and signal to investors and other stakeholders that this vital issue is being well managed. We applaud the respondents for pioneering this initiative in South Africa and encourage more extensive participation from the JSE 100 for whom water is a material issue.

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