

# CDP South Africa Water Report 2014

Written on behalf of 573 investors with US\$60 trillion in assets

November 2014



Lead Partner  
National Business Initiative



Report written by Incite



Advisory services by Irbaris



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## CDP CEO Foreword



One irrefutable fact is filtering through to companies and investors: the bottom line is at risk from environmental crises.

**Although the global economy has bounced back from crisis it demonstrates serious fragility. As we embrace recovery we must remember that we face steep financial risk if we do not mitigate increasing water related challenges in some regions.**

The unprecedented environmental challenges confronted today – safeguarding water, reducing greenhouse gas emissions, and preventing the destruction of forests – are also economic problems that demand national and international attention. One irrefutable fact is filtering through to companies and investors: the bottom line is at risk from environmental crises.

The economic impact of growing global demands for both the quantity and quality of water is becoming better understood. More than 70% of the western United States has been hit by drought. Losses to California's agricultural sector now total about US\$2.2 billion this year. China has been suffering from a nationwide shortage of both water and energy resources. The government boosted its water investment budget by 7% this year, and plans to start construction of 172 major water projects by 2020.

Over two thirds of Global 500 companies reporting to CDP this year face substantive water risks, therefore investing to conserve, manage or obtain water has become crucial for some sectors. The **Coca-Cola Company** along with its bottlers has spent nearly US\$2 billion to reduce its water use and improve water quality. **Nestlé** put aside approximately US\$43 million for water efficiency and wastewater treatment facilities at its plants last year and **BHP Billiton** has made a near US\$2 billion investment in a desalination plant in Chile, to ensure adequate water is available for its desert mining operations.

Investor engagement on these issues is increasing. As mainstream investors begin to recognise the real value

at risk, we are seeing more action from some of the 573 investors who request corporate water disclosure through CDP. Norwegian pension fund and lead sponsor of CDP's water program, **Norges Bank Investment Management**, with assets worth over US\$800 billion, expects companies to demonstrate strategies for water and climate change management.

There is growing momentum on the policy front. In the European Union, some 6,000 companies will be required to disclose on specific environmental, social and governance criteria, including water, as part of their mainstream reporting to investors. The Climate Disclosure Standards Board is working hard to provide a clear framework to support companies in this new disclosure requirement.

Leading companies increasingly recognise that business as usual approaches to water management are no longer sufficient. A shift in practice is required if companies are to realise the true benefits of water stewardship, achieve business resilience and competitive advantage. CDP's system of measurement, transparency and accountability drives positive change on water management in the world of business and investment.

We are standing at a juncture in history. With the prospect of a global climate deal coming from the United Nations, governments, cities, the private sector and civil society have a great opportunity to take bold actions and build momentum in the run up to the Paris 2015 meeting. The decisions we make today can lead us to a profitable and secure future; a future that we can all be proud of.

**Paul Simpson**  
CEO, CDP

## NBI CEO Foreword



Leading responding companies are demonstrating that companies working together with civil society and government stakeholders are making a significant impact on water stewardship in South Africa.



Water in South Africa is a social and economic issue that affects the competitiveness of our economy and individual companies. South Africa has come a long way in providing access to potable water for all since 1994, when only 59% of the population had access to water. Today more than 95% of the population has access to potable water. However, the recent water supply issues in Gauteng demonstrate the vulnerability of the South African society and economy to water supply disruptions. Being a water scarce country, degrading water infrastructure continues to be a major challenge to providing a sustainable water supply in the country. The recently released Department of Water Affairs' 2012/2013 annual report highlights that 37% of the country's clean water is being lost due to leaking pipes and taps. To avoid the constraints to economic growth that problems related to water supply and access could cause, there is an urgent need for companies to play a leading role in addressing our national water challenges.

The 2014 CDP South African water report illustrates some of the efforts that companies are making to respond to our national infrastructure needs by playing prominent roles in their catchment areas to provide sustainable water supply. The report highlights some examples of how companies are partnering with NGOs and government to drive water stewardship by conserving water and improving water infrastructure supplying local communities. It is encouraging to see that responding companies are improving in their disclosure of water management practices. All responding companies have board-level oversight of water issues and 90% have a water policy in place. This is a clear indication that companies see water as a strategic issue.

However while companies are improving their response to water risks, South African businesses' exposure to water-related risks are increasing. Ninety percent of responding companies report that their direct operations

are exposed to water risks (up from 86% in 2013) and 55% believe that these risks will materialise within the next three years. Half of the responding companies have experienced detrimental water-related impacts that have had financial implications for their business in the reporting year.

Water-related risks have been identified as more urgent than climate change risks, yet the overall response rate for CDP water (55%) remains lower than the response rate for CDP climate change. (80%). Thirty two out of 58 companies responded to CDP water this year, which is slightly lower than last year (33 out of 59).

Water is a complex issue and it appears that companies require further support to effectively account for and manage risks at the facility, water-shed or river basin level. The NBI plans to address this need through a series of workshops in our recently launched Thought Leadership Series. The NBI will provide companies with information and benefits of the various tools available for water accounting. We also plan to build on our work on water pricing which was highlighted as a direct risk to 30% of responding companies.

The NBI congratulates companies who are taking the lead on water issues and have responded to the CDP water request. We urge South African companies to get more involved in responding to water issues outside of their direct operations, as this is key to mitigating future water issues. Given the importance of water issues in South Africa, we encourage more companies to respond to CDP water. Once again however, the leading responding companies are demonstrating that companies working together with civil society and government stakeholders are making a significant impact on water stewardship in South Africa.

**Joanne Yawitch**  
CEO, National Business Initiative

## Introduction and overview

This is the fifth successive year in which the CDP's water information request has been sent to selected South African companies listed on the Johannesburg Stock Exchange, asking them to disclose their company's response to water-related risks and opportunities throughout their value chain. This year, the questionnaire was sent to 58 companies on the JSE100<sup>1</sup> that are seen to have the greatest potential to impact on, or be impacted by, water resources. In anticipation of the CDP's scoring of water responses next year (2015), the water questionnaire for 2014 was refined to include more drop down options in order to facilitate data comparability and automated scoring.

The continued participation by South African business in the CDP's water program reflects a growing appreciation by local business of the strategic importance of water. South Africa is one of the driest countries in the world, with low rainfall and limited underground aquifers contributing to the need for significant water transfers from neighbouring countries. With much of the region's economic activity occurring in areas of reduced water availability, growing concerns regarding water quality and infrastructure, and the continuing legacy of unequal access to water, there is an evident need for private sector engagement to promote more sustainable water practices.

This report, written by Incite with input from Irbaris, the NBI and the CDP, provides an objective account of the South African corporate responses to CDP's 2014 water information request. It is intended to enable readers to make an informed assessment of South African companies' understanding of water related impacts, the associated risks and their strategic response to these risks. For a more detailed understanding of a given company's approach, the individual public responses are available on the CDP's website<sup>2</sup>.

### Box 1: The Journey to Water Stewardship

In 2014, CDP worked with a wide range of stakeholders to test and refine a water scoring methodology. CDP intends to implement the methodology fully across all respondents in the 2015 disclosure cycle. CDP and other organisations write and publish reports that include an overview of CDP responses. Some of these reports will include a scoring of responses for the comprehensiveness of the companies' disclosure and performance. CDP considers the following four stages in companies' journeys towards water stewardship: Disclosure; Awareness; Management and Leadership.

Questions will be scored for the above stages, with a view to all respondents being scored in 2015. Due to the geographic, social and business contexts in which they occur, the scoring does not attempt to measure a company's impact, or risk mitigation activities. Only the top-scoring companies that have made their response public will be eligible for recognition as leaders based on these scoring approaches. If a company makes a non-public response, the response may still be scored and that score may be published.

This year's questionnaire has thus changed substantially from 2013, most notably with respect to water accounting and the geographical scale at which risk is assessed. This is the first year that companies will have seen the revised methodology. Further detail on the CDP's scoring approach for water is available at: <https://www.cdp.net/en-US/Pages/guidance-water.aspx>

<sup>1</sup> The JSE100 comprises the top 100 companies by market capitalisation listed on the Johannesburg Stock Exchange as assessed at 2 January 2014.

<sup>2</sup> To read 2014 company responses in full please go to <https://www.cdp.net/en-US/Results/Pages/responses.aspx>

## Key messages: Summary

- 1 There have been some encouraging improvements in the quality of disclosure. Nonetheless, the South African response rate to CDP's water program continues to be low, with just over half the companies responding. This does not reflect the significance of water-related risks in the country, and might suggest that companies are overlooking the severity of these risks.
- 2 There has been a noticeable improvement in disclosure for many of the key indicators across the JSE100 respondents relative to the Global 500. However, there are still some areas where South African companies can improve, most specifically in terms of: the varying approaches for assessing water-related risks, the level of understanding of supply chain risks, and the nature of water accounting practices.
- 3 South African companies continue to demonstrate greater vulnerability to water-related issues than their global counterparts and recognise the impact on their overall growth and longevity. Almost all of the respondents report exposure to significant water-related risks in their direct operations, many of which are seen as likely to materialise within the short term. Half of the respondents experienced water-related impacts in the reporting period.
- 4 The disclosure on water-governance measures suggests that water-related issues are being considered at an appropriately strategic level among the responding companies. It is not always clear, however, whether this is translating into appropriate levels of action within companies' operations and across their supply chains.
- 5 There has been an increase in the number of respondents identifying water-related opportunities, including a particular increase in the number of companies identifying opportunities for enhancing brand value.

## Investor perspective: Sanlam

### Protecting South Africa's water supply

Water-related issues create risks to our group in the form of increasing insurance claims and exposure to investment risks.



The management of our finite water resources is recognised as one of the greatest risks to the global economy. Water risks play out even more significantly on a national scale in South Africa, since the country is listed as one of the 30 most water-stressed countries in the world. The CDP water program supports this, with 90% of respondents subjected to physical risks in direct operations, compared with 66% of the Global 500 companies.

The **Sanlam** group of businesses provides diverse services within the financial sector, with a primary focus on life and short-term insurance and investment management. These services are linked to water at a fundamental level. Water-related issues create risks to our group in the form of increasing insurance claims and exposure to investment risks.

Besides working towards mitigating risk to our business, we believe that as one of South Africa's leading financial services groups, we also have a broader responsibility to address the challenges of water scarcity in our country. Since 2007 we have partnered with the World Wide Fund for Nature South Africa (WWF-SA) on various projects aimed at conserving and ensuring the healthy functioning of South Africa's water systems. Our partnership with the WWF-SA is our largest CSI project, with a budget of R16 million planned for the three-year period from 2012 to 2015. From an industry perspective, it is generating insights that link water security back to financial services. These include an understanding of water risks that drive better insurance and investment practices.

In partnership with WWF-SA and local government in water stressed areas, our short term insurer, **Santam**, have embarked on a series of projects. The key outcomes will be more effective integration across governance structures and improved risk management

with respect to municipal functions that affect insurance, namely flood and storm water drainage. Through coordinating public and private sector responses to shared risk, adaptation capacity will be strengthened and costs reduced to government and local communities as well as insurers. We have also partnered with WWF-SA and other organisations, to locate water source areas, identify the risks faced and incorporate the findings into the National Water Resource Strategy.

There is currently limited understanding on how water risk impacts company share value, and how asset owners can drive better practice for water security. The WWF-SA has assisted **Sanlam** in evaluating the water risk of the top 40 JSE-listed companies, and this information has been shared with our investment business. We have also demonstrated a global water risk filter developed by WWF International to investors, which we believe will be useful to guide investors in evaluating water risk.

These initiatives in the investment arena are currently in an exploratory phase, but we hope water risk can potentially be pulled into valuations of companies in future. Ultimately we want investors to have robust information with which they can hold companies to account in terms of their water practice and impacts.

Water links us all and every part of our economy is dependent on it. South Africa needs strong, credible leadership in water risk management to start framing viable solutions for business, government and broader society. We hope that going forward, more corporates will step up to the plate and engage in our national water dialogue to improve water security for the South African economy to the benefit of all our citizens.

**Francois Adriaan**  
Head of Group Corporate Affairs, Sanlam

## Guest comment: Exxaro

### Water conservation in the mining sector



We have adopted a holistic strategy to manage water-related risks, minimise impacts, and operate efficiently through reduction, reuse and recycling.



At **Exxaro Resources Limited (Exxaro)** we recognise that water is a strategic natural resource for South Africa. It is also key to our business and therefore we manage water with this strategic consideration in our mining plans. Initiatives to conserve water are considered at all sites to ensure water use is optimised. We have adopted a holistic strategy to manage water-related risks, minimise impacts, and operate efficiently through reduction, reuse and recycling.

Water Conservation and Demand Management is a fundamental step in promoting water use efficiency and is consistent with the National Water Act (act 36 of 1998) which emphasizes efficient management of our water resources. **Exxaro** has partnered with the Department of Water and Sanitation and the Chamber of Mines through a Steering Committee structure to set water use efficiency targets for mining sub-categories within the sector.

We are drafting water conservation plans that support the national water strategy to ensure equitable distribution of water resources whilst enabling business growth (sustainable use). We are also committed to protecting and improving water quality, by ensuring the water we discharge is of the same or better quality than the original quality of water consumed. Central to these plans are the three water treatment plants planned in the location of some of our operations in the Mpumalanga region as part of our long-term water management strategy. These plants will have total capacity to treat 11,5 mega litres per day. The water treatment plants at Matla and North Block Complex's Glisa operations are scheduled for delivery in late 2014 while the Arnot plant is at prefeasibility stage. Optimising the use of recycled water remains our prime focus and we have installed a filtration plant at Matla to treat water for reuse in underground workings.

Innovative passive water treatment systems are being evaluated by our R&D department in collaboration with

the University of the Free State, as a long-term solution to water management, including post mine closure.

We are in the scoping phase of a company-wide project to optimise our water-flow monitoring systems to ensure the sustainable use of water, with a strong focus on efficiency through reuse and recycling. It informs both our policy and strategy on mine and waste water management with regards to pollution prevention, minimising environmental impacts, maximising water reuse and reclamation, responsible water discharge and disposal and water treatment.

We have developed a management standard on water for mining and industrial use. The standard articulates our commitment to develop and implement an effective integrated water and waste management plan and applies to the full lifecycle of a mine, including planning, construction, operational, decommissioning, closure and rehabilitation phases.

Flowing from the policy and management standard is the water management programme. We have made considerable progress with regards to a vision, strategy and policy as well as data management that facilitates water accounting and reporting. Our aim is to achieve responsible and sustainable water management across **Exxaro**. The programme concentrates on relevant water-use and related risk issues – from security of supply for operations to water efficiency and water-cost management – and manages these within the ambit of current and anticipated regulatory compliance requirements. While 16 strategic initiatives have been identified to reach specific three- to five-year goals, our strategy also articulates aspirational goals that include becoming self-sufficient in our operational water requirements and becoming a leader in water technology solutions.

**Willem van der Merwe**  
Technology Manager: Water and Energy, Exxaro

## The South African response: Key messages

**KEY MESSAGE 1: There have been some encouraging improvements in the quality of disclosure. Nonetheless, the South African response rate to CDP's water program continues to be low, with just over half the companies responding. This does not reflect the significance of water-related risks in the country, and might suggest that companies are overlooking the severity of these risks.**

This year 32 companies out of 58 responded to the CDP request, compared with 33 (out of 59) in 2013 (Box 2). The South African response rate of 55%, although slightly lower than the response rate from the Global 500 (58%), continues to be similar to the United States and lower than the United Kingdom, which were 58% and 83% respectively.

There continues to be a large variation in the response rate between sectors (Figure 1), although this variation remains consistent year-on-year. Consumer Discretionary & Consumer Staples continue to have the lowest response rate at 38%, Industrials dropped to 50% from 63% in 2013<sup>3</sup>, while the response rate for Energy & Materials improved to 67% from 58%. Four

<sup>3</sup> This decrease was due to Hosken Consolidated Investments moving from the Financials GICS sector to Industrials and Altron falling out of the JSE100.

companies chose to be non-public respondents this year, up from three non-public respondents last year and two in 2012.

The response rate for water is once again weaker than that for climate change (the CDP South Africa Climate Change Report 2014), which is surprising given the widely-recognised importance of water issues within South Africa, and the greater immediacy of water stewardship concerns (Figure 2). Interestingly, there are broad similarities in the comparative response rates by sector, with the Health Care sector performing best, and Consumer Discretionary & Consumer Staples the weakest in both the Climate and Water Programs.

The response rates by sector do not necessarily reflect the severity of the risks that they face. In particular, the Consumer Staples sector has considerable exposure

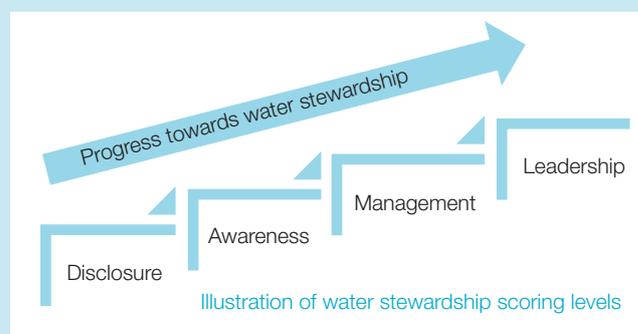
### Box 2: The JSE100 2014 Sample

The 2014 target sample in South Africa consists of those 58 companies from the JSE100 (as listed at 2 January 2014) that are deemed to have the greatest potential to impact on, or be impacted by, water resources (Table 1). This sample compares with a sample size of 59 companies in 2013 and 61 in 2012. Two of the 58 companies (**Arcelor Mittal** and **Mondi Ltd**) engaged in the process via parent companies and have not been included in the analysis. This means that for the majority of analysis in this report the sample is 30 companies. One company that responded last year elected not to participate this year. None of the three new companies that were invited to respond participated (**Invicta Holdings**, **RCL Foods Ltd** and **Sibanye Gold**). Four companies that were asked to respond last year (**African Oxygen Ltd Ord**, **Allied Electronics Corporation Ltd (Altron)**, **JD Group Ltd** and **KAP Industrial Holdings Ltd**) were no longer in the JSE100 this year; some of these companies elected to participate as self-selected respondents.

To enable sectoral analysis, and maintain comparability with previous years' reporting and with the *CDP Climate Change South Africa Report 2014*, the 2014 sample has been clustered into four sectors: Consumer Discretionary & Consumer Staples (CD&CS); Energy & Materials (E&M); Health Care (HC); and Industrials (I). The sectors vary in terms of size, and have also changed in their composition between 2013 and 2014. As in previous years, Consumer Staples & Consumer Discretionary have been combined

into one sector; this is due to the very limited response from the Consumer Discretionary sector, with only two public responses from seven invited companies.

The 2014 information request changed from 2013 in order to facilitate scoring across the CDP's water stewardship framework. Stewardship implies that there is a level of responsibility to act whilst being mindful of limits and other users. CDP believes that the journey to water stewardship is distinguished by four levels (see below).



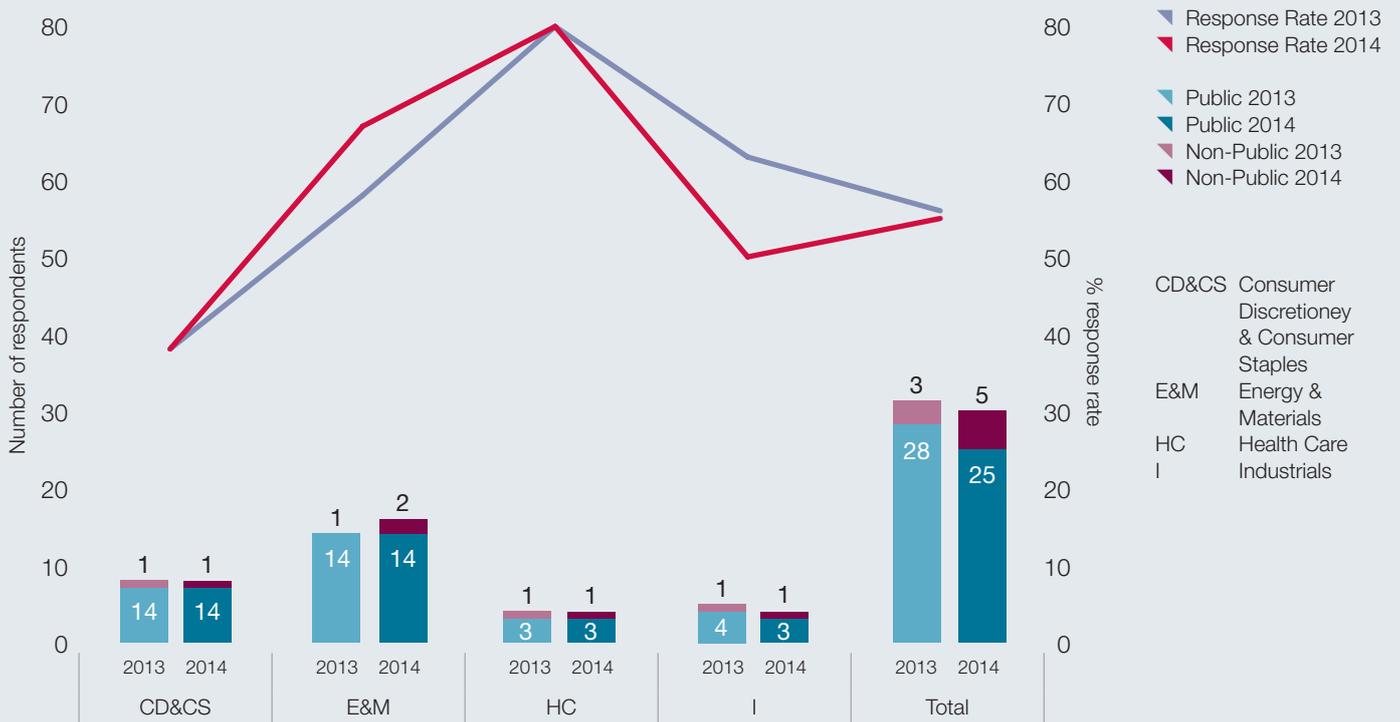
CDP's methodology has placed an increased emphasis on companies to demonstrate an understanding of the risks present at the river basin level, and to report their water accounting practices at the river basin and facility level for those facilities at risk.

because of the links within their supply chains to agriculture. This sector had a response rate of 42%, compared with 69% in the Global 500. Irrigation for agriculture accounts for 50% of total water use in South

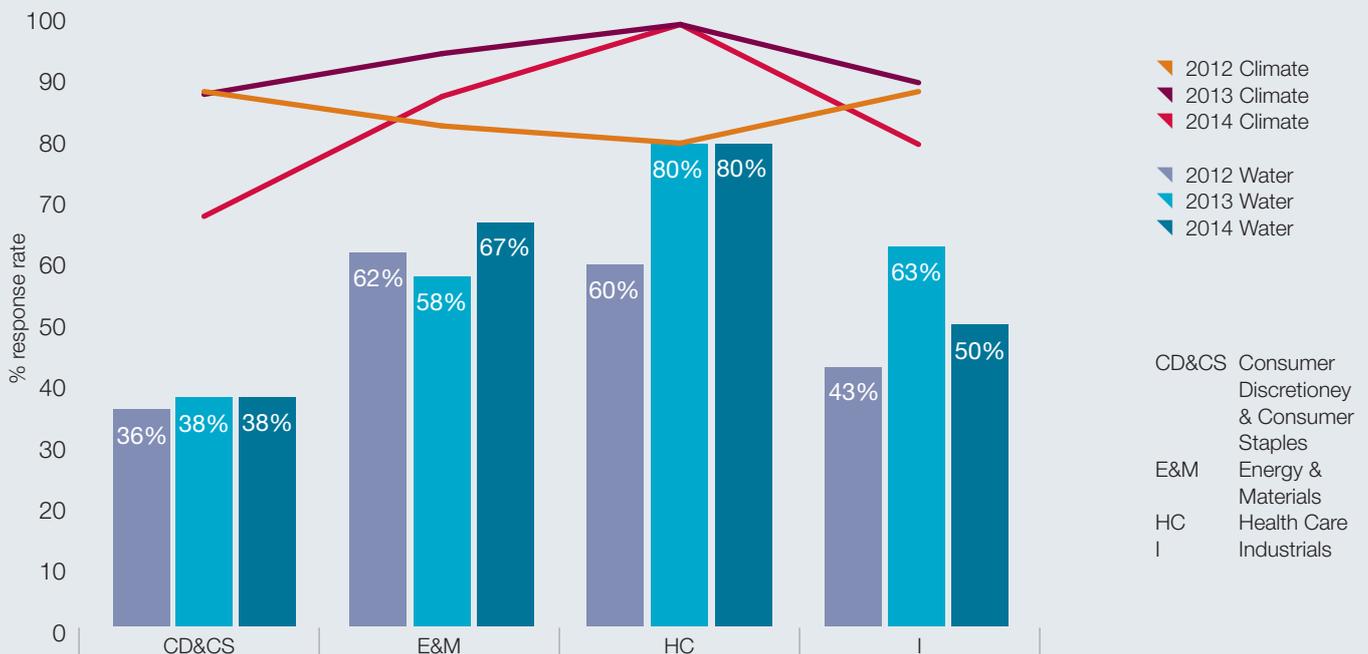
Africa and given the rainfall patterns and the fact that the country is considered semi-arid<sup>4</sup>, the poor response rate of the sector is particularly concerning.

4 See: <http://www.dwaf.gov.za>

**Figure 1:** Number of respondents and % response rate by sector (2013 and 2014)



**Figure 2:** Comparison of JSE100 Water and Climate response rates by sector (2012, 2013 and 2014)



**Table 1: Responses to the CDP water program (2014, 2013 and 2012) and CDP Climate Program 2014**

Company	Sector	Sub-Sector	2014 CDP Water Response	2013 CDP Water Response	2012 CDP Water Response	2014 CDP Climate Response
Adcock Ingram	Health Care	Pharmaceuticals	AQ (np)	AQ	AQ	AQ
AECI Ltd Ord	Materials	Chemicals	AQ	AQ	AQ	AQ
African Rainbow Minerals	Materials	Metals & Mining	DP	DP	DP	AQ
Anglo American	Materials	Metals & Mining	AQ	AQ	AQ	AQ
Anglo American Platinum	Materials	Metals & Mining	AQ	AQ	AQ	AQ
AngloGold Ashanti	Materials	Metals & Mining	AQ	AQ	AQ	AQ
Arcelor Mittal South Africa Ltd	Materials	Metals & Mining	AQ (sa)	AQ (sa)	AQ (sa)	AQ
Aspen Pharmacare Holdings	Health Care	Pharmaceuticals	AQ	AQ (np)	DP	AQ
Assore Ltd	Materials	Metals & Mining	DP	DP	DP	AQ (np)
Aveng Ltd	Industrials	Construction & Engineering	AQ (np)	AQ (np)	DP	AQ
Avi Ltd	Consumer Staples	Food Products	DP	DP	DP	DP
Barloworld	Industrials	Trading Companies & Distributors	AQ	AQ	AQ	AQ
BHP Billiton	Materials	Metals & Mining	AQ	AQ (sa)	AQ	AQ
Bidvest Group Ltd	Industrials	Industrial Conglomerates	AQ	AQ	DP	AQ
British American Tobacco	Consumer Staples	Tobacco	AQ	AQ	AQ	AQ
Clicks Group Ltd	Consumer Staples	Food & Staples Retailing	DP	DP	DP	AQ
Compagnie Financière Richemont SA	Consumer Discretionary	Textiles, Apparel & Luxury Goods	AQ	AQ	DP	AQ
Exxaro Resources Ltd	Energy	Oil, Gas & Consumable Fuels	AQ	AQ	AQ	AQ
Famous Brands Limited	Consumer Discretionary	Hotels, Restaurants & Leisure	NR	NR	/	NR
Foschini Group Ltd	Consumer Discretionary	Specialty Retail	DP	AQ (np)	AQ (np)	AQ (np)
Gold Fields Limited	Materials	Metals & Mining	AQ	AQ	AQ	AQ
Harmony Gold Mining Co Ltd	Materials	Metals & Mining	AQ (np)	DP	DP	AQ
Hosken Consolidated Investments	Industrials	Industrial Conglomerates	DP	DP	/	AQ
Illovo Sugar Ltd	Consumer Staples	Food Products	AQ	AQ	AQ	AQ
Impala Platinum Holdings	Materials	Metals & Mining	AQ	AQ	AQ	AQ
Invicta Holdings	Industrials	Trading Companies & Distributors	NR	/	/	NR
Kumba Iron Ore	Materials	Metals & Mining	AQ	AQ	AQ	AQ
Life Healthcare Group Holdings Ltd	Health Care	Health Care Providers & Services	DP	DP	NR	AQ
Lonmin	Materials	Metals & Mining	DP	DP	AQ	AQ
Massmart Holdings Ltd	Consumer Staples	Food & Staples Retailing	NR	DP	DP	AQ
Mediclinic International	Health Care	Health Care Providers & Services	AQ	AQ	AQ	AQ
Mondi Limited	Materials	Paper & Forest Products	AQ (sa)	AQ (sa)	AQ (sa)	AQ (sa)
Mondi PLC	Materials	Paper & Forest Products	AQ	AQ	AQ	AQ (np)
Mr Price Group Ltd	Consumer Discretionary	Specialty Retail	DP	DP	DP	DP
Murray & Roberts Holdings Limited	Industrials	Construction & Engineering	DP	DP	DP	AQ
Nampak Ltd	Materials	Containers & Packaging	DP	DP	DP	AQ
Netcare Limited	Health Care	Health Care Providers & Services	AQ	AQ	AQ	AQ
Northam Platinum Ltd	Materials	Metals & Mining	AQ	AQ	AQ	AQ
Oceana	Consumer Staples	Food Products	DP	DP	DP	AQ
Omnia Holdings Ltd	Materials	Chemicals	DP	NR	NR	DP
Pick n Pay Stores Ltd	Consumer Staples	Food & Staples Retailing	AQ (np)	AQ	AQ	AQ
Pioneer Foods	Consumer Staples	Food Products	DP	DP	AQ np	AQ
PPC Ltd	Materials	Construction Materials	DP	DP	DP	AQ
RCL Foods Ltd	Consumer Staples	Food Products	DP	/	/	AQ
Reunert	Industrials	Industrial Conglomerates	AQ	AQ	AQ	AQ
Royal Bafokeng Platinum Ltd	Materials	Metals & Mining	AQ	AQ	AQ	AQ
SABMiller	Consumer Staples	Beverages	AQ	AQ	AQ	AQ
Sappi	Materials	Paper & Forest Products	DP	DP	DP	AQ
Sasol Limited	Energy	Oil, Gas & Consumable Fuels	AQ	AQ	AQ	AQ
Shoprite Holdings Ltd	Consumer Staples	Food & Staples Retailing	DP	DP	DP	AQ (np)
Sibanye Gold Ltd	Materials	Metals & Mining	DP	/	/	/
Steinhoff International Holdings	Consumer Discretionary	Household Durables	DP	DP	DP	AQ
The Spar Group Ltd	Consumer Staples	Food & Staples Retailing	DP	DP	DP	DP
Tiger Brands	Consumer Staples	Food Products	AQ	DP	DP	AQ
Tongaat Hulett Ltd	Consumer Staples	Food Products	AQ	AQ	AQ	AQ
Truworths International	Consumer Discretionary	Specialty Retail	DP	DP	DP	AQ
Wilson Bayly Holmes-Ovcon Ltd	Industrials	Construction & Engineering	DP	DP	DP	AQ
Woolworths Holdings Ltd	Consumer Discretionary	Multiline Retail	AQ	AQ	AQ	AQ

Total responses

26

4

2

23

3

Key

AQ

Answered questionnaire (public)

AQ (np)

Answered questionnaire, but declined permission to make this public

AQ (sa)

Answered questionnaire via parent company also in sample

DP

Declined to participate

NR

No response

/

Not in sample for that year

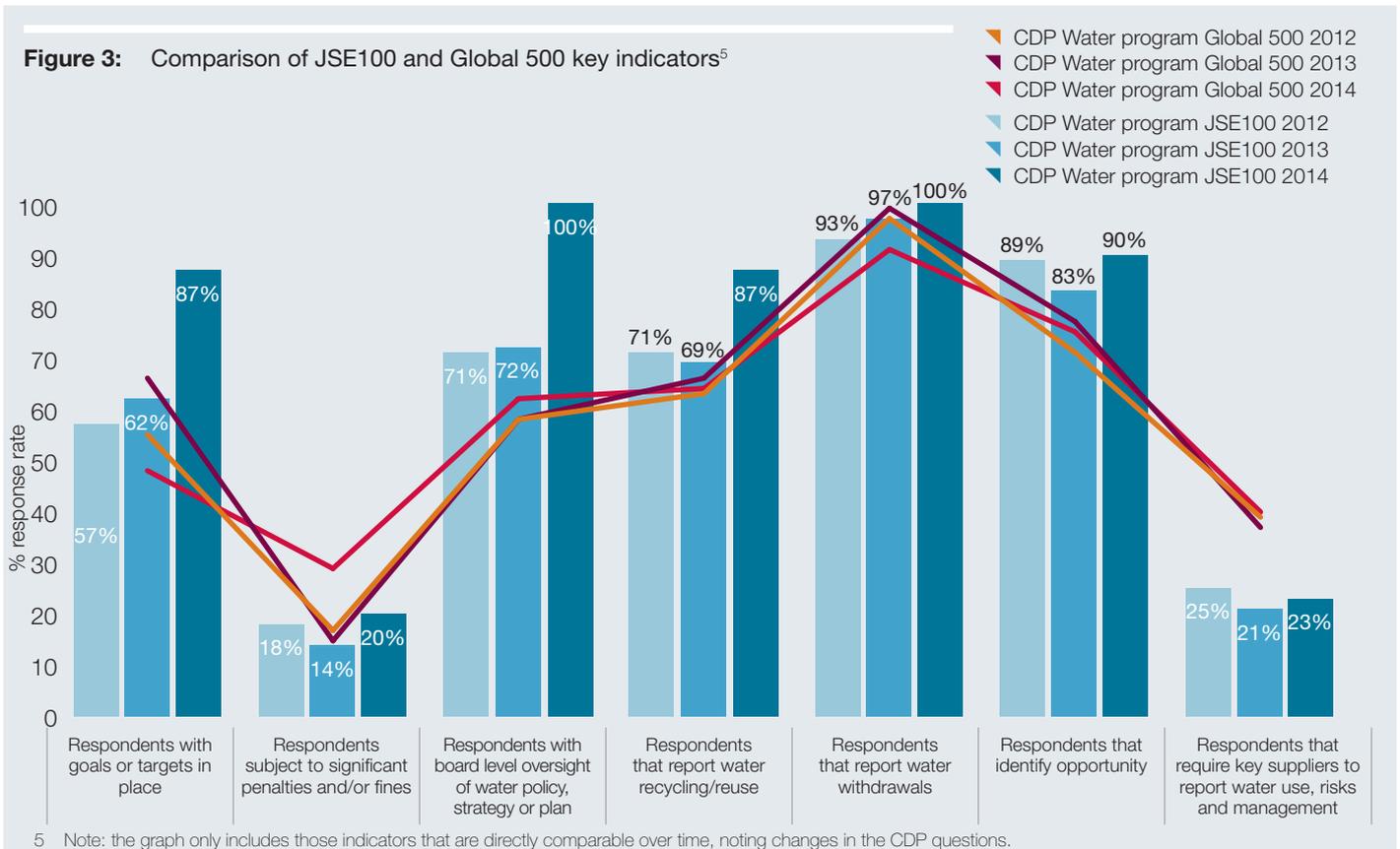
**KEY MESSAGE 2: There has been a noticeable improvement in disclosure for many of the key indicators across the JSE100 respondents relative to the Global 500. However, there are still some areas where South African companies can improve, most specifically in terms of: the varying approaches for assessing water-related risks, the level of understanding of supply chain risks, and the nature of water accounting practices**

The information disclosed by companies (Table 2) and the quality of disclosure differs across the South African sample, as highlighted throughout this report. The responses to the governance questions arguably suggest that most respondents understand the strategic importance of water, with many of them having governance structures in place to deliver improved accounting and risk analysis. All respondents report board-level oversight for water. In addition, 90% have a water policy in place (although only 50% of companies make this publicly available), and 87% have integrated water issues into their business strategy.

In terms of the key indicators that are comparable over the last three years (Figure 3), the South African sample has made good progress in all except two areas (respondents subject to significant fines / penalties and respondents requiring suppliers to report water use risks and management). As outlined in Figure 3, the South African respondents have also improved their performance relative to the Global 500 in several of those areas where they have traditionally lagged behind.

Several of the comparisons across the key indicators highlight the different context within which South African business operates. Reflecting their greater vulnerability to water-related issues, 50% of the JSE100 respondents experienced detrimental impacts in the last year (compared with 31% in the Global 500), while 30% of companies report water as a constraint (compared with 21% in the Global 500). Interestingly, South African respondents place a greater emphasis on engaging with local communities than their Global 500 peers, with 63% of the JSE100 respondents factoring local communities in their risk analyses as compared with 40% in the Global 500.

There are still some areas where South African respondents compare unfavourably within the sample, and with the Global 500. Two particular areas for suggested improvements are: understanding risks in the company's supply chain, and enhancing water accounting practices, especially at the facility level for facilities at risk.



## Key messages

**Table 2:** Comparing key indicators between the CDP South Africa water programme with the Global 500 water program (2014, 2013 and 2012)<sup>6</sup>

▼ CDP water program JSE100

▼ CDP water program Global 500

▼ Non-comparable

Key Indicators	CDP water program JSE100 2014	CDP water program JSE100 2013	CDP water program JSE100 2012	CDP water program Global 500 2014	CDP water program Global 500 2013	CDP water program Global 500 2012
Total respondents	32	33	30	174	180	191
Public respondents	28	30	28	135	149	156
Non-public respondents	4	3	2	39	31	35
Response rate	55%	56%	49%	58%	59%	60%
<b>CURRENT STATE</b>						
Respondents that have evaluated how water quality and quantity could impact business growth over the next year or more	87%			74%		
Respondents that have experienced water-related business impacts in the reporting year	50%			30%		
<b>WATER RISK ASSESSMENT</b>						
Respondents that undertake water risk assessments at the river basin scale	13%			25%		
Respondents that factor estimates of future potential regulatory changes at a local level into their water risk assessments	80%			55%		
Respondents that factor local communities and other water users at a local level into their water risk assessments	63%			40%		
Respondents that require key suppliers to report water use, risks and management	23%	21%	25%	40%	37%	39%
<b>WATER RISKS &amp; OPPORTUNITIES</b>						
Respondents exposed to risks in either direct operations or supply chain	93%			68%		
Respondents exposed to risks in direct operations	90%			66%		
Respondents exposed to risks in supply chain	57%			44%		
Respondents exposed to risks in both direct operations and supply chain	53%			41%		
Respondents that identify opportunities	90%	83%	89%	75%	77%	71%
<b>ACCOUNTING</b>						
Respondents that report water withdrawals	100%	97%	93%	91%	99%	97%
Respondents that report water recycling/reuse	87%	69%	71%	64%	66%	63%
Respondents that monitor all water aspects for more than 50% of facilities at risk	27%			35%		
Respondents that verify (>1%) total volume of water withdrawal data by source for at risk facilities	68%			34%		
Respondents that verify (>1%) water discharge quality data by destination for at risk facilities <sup>7</sup>	13%			21%		
<b>GOVERNANCE &amp; STRATEGY</b>						
Respondents with water integrated into their business strategy	87%			90%		
Respondents with board level oversight of water policy, strategy or plan	100%	72%	71%	62%	58%	58%
Respondents with a water policy with goals and guidelines for action	90%			68%		
<b>COMPLIANCE</b>						
Respondents subject to significant penalties and/or fines	20%	14%	18%	29%	15%	17%
<b>TARGETS AND INITIATIVES</b>						
Respondents with goals or targets in place	87%	62%	57%	48%	66%	55%
Respondents reporting targets with quantitative actions to manage water resources	67%			64%		
Respondents reporting qualitative goals leading towards improved corporate water stewardship	73%			66%		
Respondents that align public policy position with water stewardship	23%			18%		

<sup>6</sup> The CDP water program questionnaire was substantially changed in 2014. Many of the historic key indicators are not comparable.

<sup>7</sup> Verification of water data is still in its infancy, many standards are yet to be recognised.

### Significant variation in assessing water-related risks increases difficulties in comparison

There is significant variation in the approaches being used by companies to assess water-related risks, as well as in the geographic scale of these assessments. This raises questions regarding the comparability of companies' responses with respect to water risks, and concerns as to whether they are doing enough to effectively manage risks at the facility, watershed or river-basin level.

Amongst the 27 companies (90%) that have formally assessed their water risks, there is great variation in the methods being used to assess their risk exposure. Between them, the responding companies have identified 27 different methods for assessing water risk<sup>8</sup> (Figure 4). The most popular assessment method is internal company knowledge, used by 17 companies. Seven companies use this method alone, which is of concern if this knowledge sits with an individual person, rather than being embedded more broadly within the company. The WRI Global Aqueduct is also frequently used, with seven companies (23%) using the online interactive tool.

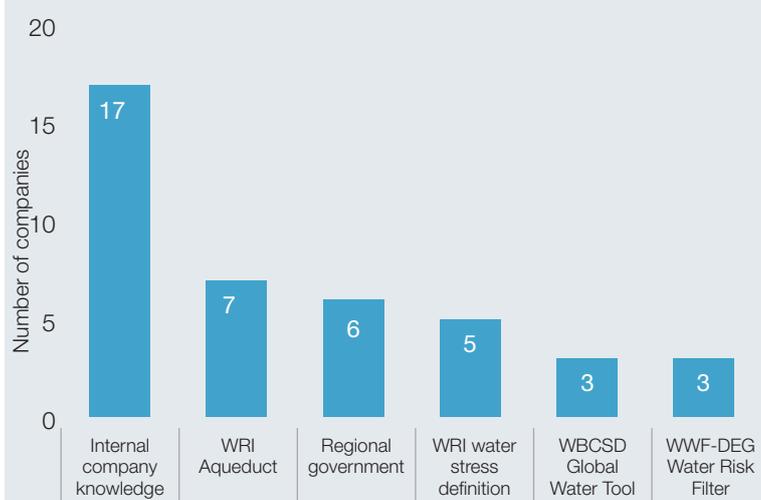
Whatever risk methodologies companies use for assessing water-related risks and impact, it is critical that these provide for assessing emerging risks, including those beyond the factory fence, as well as for the threat posed by poor water quality.

In addition to the variation in methodologies, there are also significant differences in the geographic scale of assessment (Figure 5). Two companies assess risks at the country level and seven at the business unit level. Four companies (13%) consider risks at the river basin level, while 11 companies assess risk at the facility level. Given the local and specific nature of water stewardship, analysis at a geographical scale higher than river basin could be insufficient. Consumer Discretionary & Staples are most likely to assess risk at the river basin level (33% of total risk assessments) and the four companies in the Industrials sector only consider risks at the business unit level. Six companies (20%) assess water risk at more than one geographic scale within their operations.

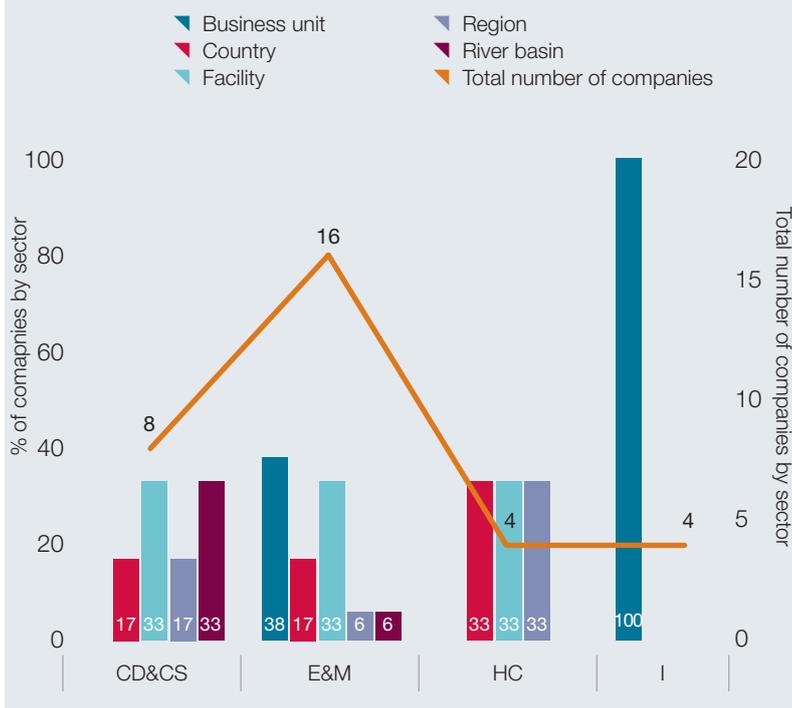
Twenty-three companies (77%) identified 477 facilities across the globe that are exposed to water risk that could cause substantive changes in their business at the river basin level. Geographically, 68% of these 'at risk' facilities (325) exist in South Africa, 16% (76) in Australia, with the balance across 24 different countries of operation. There appears to be a high level of awareness of the threat posed by water risks at the facility level, even though only 15 companies (50%) formally disclose that they assess risk at the facility or river basin level (Figure 6).

Twenty-three respondents provide metrics defining how they evaluate their exposure. The most common method, used by 11 companies, is "percentage of global production capacity". For some companies the sum of exposure of all the facilities identified becomes high. Five companies are heavily exposed to water risk at a global level, due to the high percentage (over 70%) of their global production coming from river basins identified as being 'high risk'.

**Figure 4:** The most popular water assessment tools used by companies<sup>9</sup>



**Figure 5:** Percentage of total risk assessments reported by respondents and their geographic scale



<sup>8</sup> It is important to note that most respondents report using more than one method.

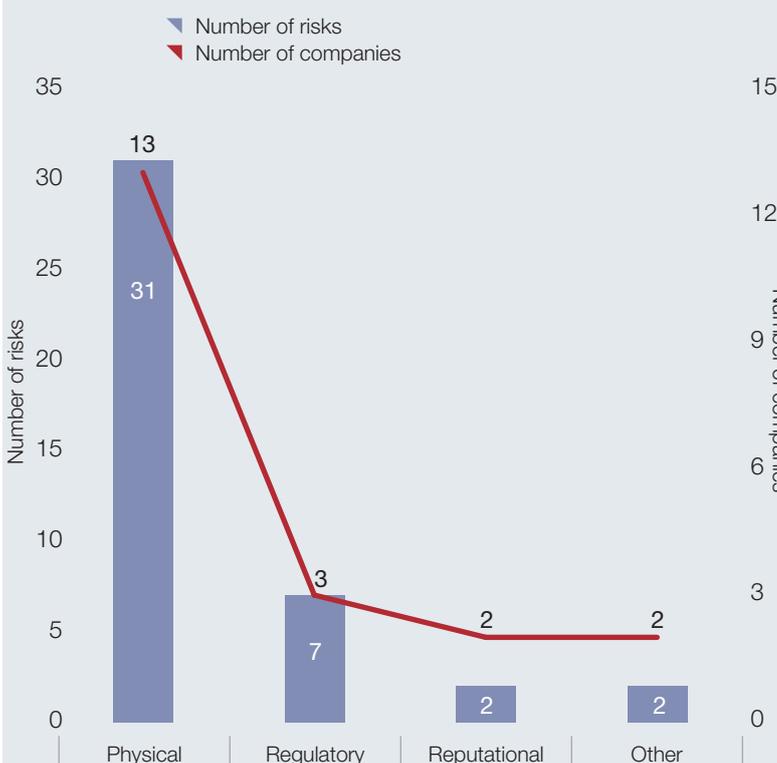
<sup>9</sup> Some companies use more than one tool to assess water risk

## Key messages

**Figure 6:** Number of companies that assess and report substantive risk at river basin or facility level<sup>10</sup>



**Figure 7:** Number of risks and number of companies reporting each risk within their supply chains



<sup>10</sup> 'Substantive risks' refers to a water-related risk that could cause a substantive change in operations, revenue or expenditure and is defined by each company within their response.

### Companies do not sufficiently appreciate the nature of supply chain risks

There continues to be a generally poor appreciation of the nature of water-related risks in companies' supply chains. These risks are typically seen as being of lower impact and less immediate than risks to direct operations.

Seventeen of the responding companies (57%) believe that they are exposed to substantive risks in their supply chains. Three companies deem supply chain risks to be unimportant and four companies have not received instructions from management to implement a risk assessment. The balance of companies disclose "other"<sup>11</sup> reasons for not requiring reporting by suppliers – that is not to say that companies are necessarily unaware of the issues or that they are not taking action.

Only seven companies (23%) require their suppliers to report on their water use, risks and management, far below the Global 500's 40%. Six of these seven companies identify risk in their supply chains, contributing 19 of the 42 supply chain risks (45%) identified. At particular risk is the Consumer Discretionary & Consumer Staples sector, with three companies reporting 17 risks.

The supply chain risk landscape is dominated by physical risks (Figure 7), the four most commonly reported risks are: increased water scarcity, climate change, increased water prices and increased water stress.

Companies report fewer supply chain risks (43) than risks to direct operations (189). They expect that 47% of supply chain risks will occur in the next three years, whilst 55% of direct risks will occur in the same timeframe. Figure 8 compares the risks to direct operations with those in the supply chain and their expected timeframes. The Consumer Discretionary & Consumer Staples sector discloses the most risks, with 62% of all supply chain risks originating from this sector (primarily Consumer Staples).

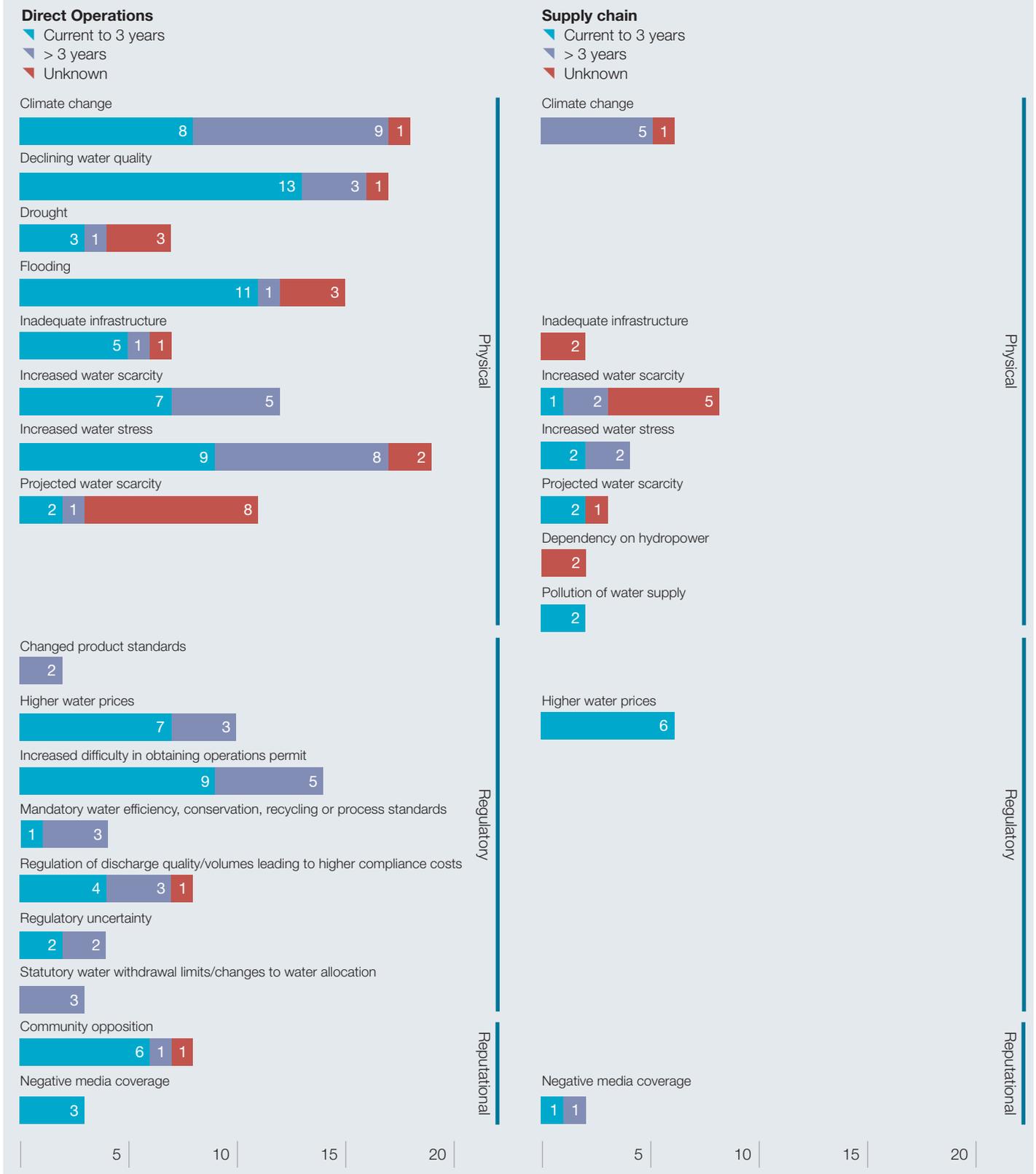
Interestingly 88% of supply chain risks and 87% of direct risks are seen to be 'probable' or 'highly probable'. Supply chain risks therefore might be seen to have a lower impact, but they are seen to be just as likely to happen. Respondents believe that 26% of supply chain risks will have a medium-high and high impact, as compared with 50% of the risks in their direct operations. There are various possible explanations for this: companies might be able to easily procure products elsewhere, their risks might be sufficiently spread so that they are not exposed substantively to supply coming from water constrained locations, or they are possibly taking other measures to mitigate supply chain

<sup>11</sup> "Other" responses are free text fields disclosed by the responding companies.

risk. However, CDP requires companies to report their inherent risk, even if residual risk is small after mitigation activities. Global supply chains bring complexity and

companies' lack of interrogation of their supply chains could leave them without procurement options.

**Figure 8:** Comparison of risks and their timeframes for direct operations and within supply chain



## Key messages

### There are improvements in water accounting but gaps remain

Although there have been improvements in water accounting, with all companies reporting some data on water use in their operations, this is generally less well understood at the level of facilities and river basins at risk.

Every respondent reports their water use in at least one of the four CDP categories (Figure 9), with 20 companies (67%) reporting all four categories. Eight companies (27%) were able to report on all eight aspects of water accounting asked for by the CDP<sup>12</sup>,

<sup>12</sup> The eight aspects of water accounting are: water withdrawals (total volumes); water withdrawals (volume by sources); water discharges (total volumes); water discharges (volume by destination); water discharges (volume by treatment method); water discharge quality data (quality by standard effluent parameters); water consumption (total volume); and water recycling / reuse (total volume).

covering more than 76% of their facilities at risk. This compares with 24% of the Global 500. Given the levels of risk that South African companies disclose, this figure should be expected to increase over the next few years as companies interrogate risk at the river-basin scale and improve their water accounting processes.

The CDP methodology requires companies to report the nature of recent changes (if any) in terms of water withdrawals, water discharges and water consumption for those facilities identified as being at risk. The companies provided their own performance assessments for the following thresholds provided by the CDP: 'much lower', 'lower', 'about the same', 'higher', 'much higher', and 'this is our first year of estimation'.

Figure 10, Figure 11 and Figure 12 show the changes year-on-year in terms of water withdrawal, discharge and consumption. (The disparity in the total numbers in each graph is due to companies not providing data for a number of their facilities identified as being at risk).

The changes are due to many factors. Many of the companies in the Materials sector reported increased water withdrawals due to increased rainfall. Some companies reported increases in production as leading to increased water withdrawal, while others highlighted improved or changed water accounting methodologies as reasons why substantial increases (or decreases) in water withdrawal occurred. Reasons for the decreases included companies focusing on water measurement and efficiency and implementation of water conservation projects. From the responses, many factors are at play when considering the reasons for these year-on-year changes. To avoid reaching incorrect conclusions, it is important to review the companies' individual responses to understand their particular context.

The consumption to withdrawal ratio differs significantly across sectors, Industrials consuming 19% of their withdrawals, Consumer Discretionary & Consumer Staples 78%, Health Care 93%, and Energy & Materials 108%. Within sectors the range of answers was disparate. For example, within Materials, one company reported no withdrawals but consumed water and another consumed 249% of their withdrawals. In total, five companies consumed more water than they withdrew. This suggests possible confusion arising from the nature of the questions, or potentially a lack of understanding of the dynamics of water use.

The Consumer Staples sector dominates water withdrawals within this sample, encompassing 74% of all water withdrawals for facilities at risk. The largest source of water withdrawal is from surface water which constitutes 52% of all withdrawals. Consumer Staples and Materials account for almost all water discharges (99%) with the largest discharge destination being storage or waste lagoon (Figure 13 and Figure 14).



Gold Fields has as of yet not engaged with key suppliers on their water use, risks and management. However, Gold Fields has recognised the importance to do so and is therefore planning to develop a 'Guideline for supply chain climate risk management'. How to engage with suppliers on water use, risks and management of these risks will form an important part of this Guideline.

#### Gold Fields Ltd

Although AECI has engaged in an extensive water use, conservation and demand management assessment, this process has largely focused on obtaining a better understanding of the AECI operations. It is essential that the company focuses on understanding its own risk and required mitigation measures. Once these have been comprehensively addressed, it will make more sense to address supply chain risk exposures.

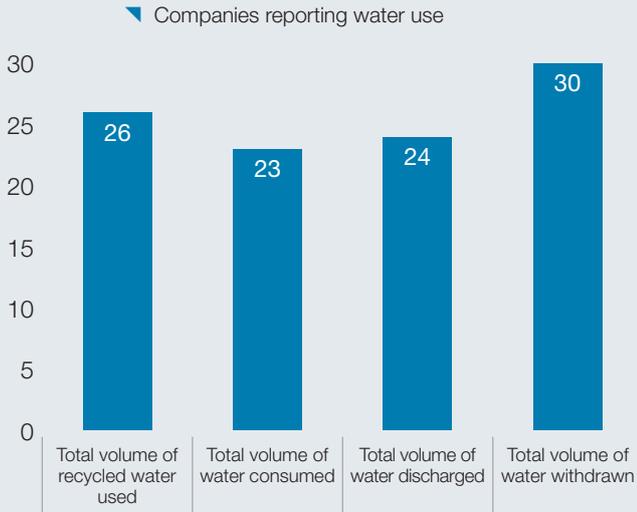
#### AECI Ltd Ord

While we do not require outgrowers to report on quantity of water used, we do model outgrower water requirements. We also hold monthly engagement sessions with growers, during which water matters / risks are discussed when required.

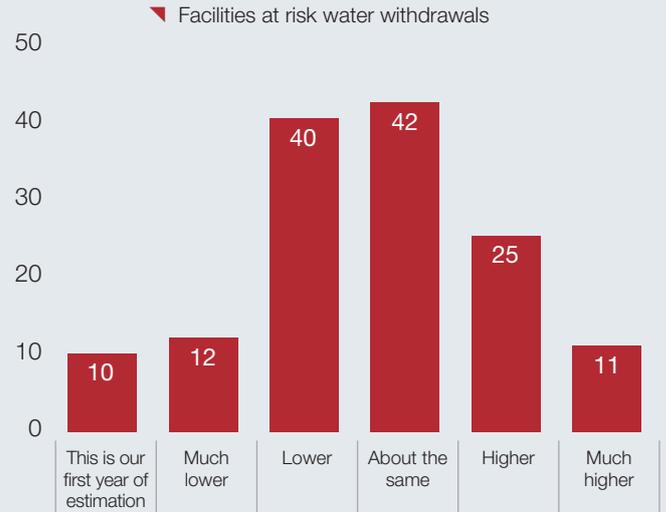
#### Illovo Sugar Ltd



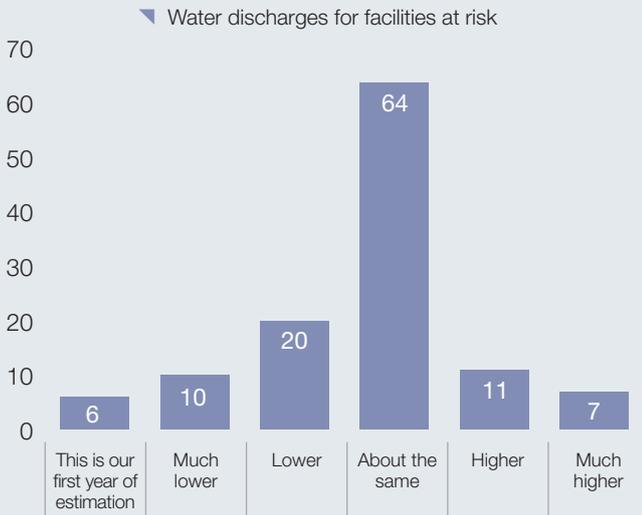
**Figure 9:** Number of companies able to report water use statistics



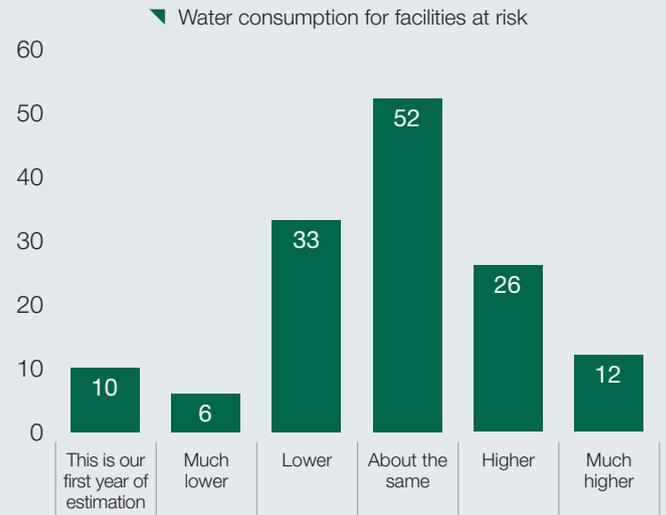
**Figure 10:** Change in water withdrawal volume (year-on-year) at high-risk facilities



**Figure 11:** Change in water discharge volume (year-on-year) at high-risk facilities

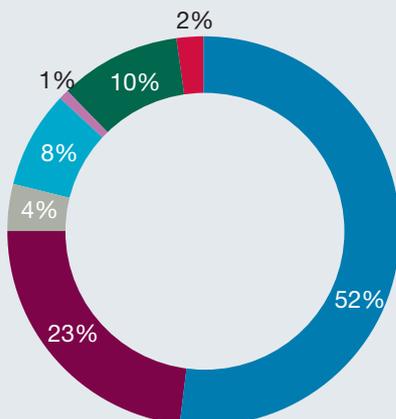


**Figure 12:** Change in water consumption volume (year-on-year) at high risk facilities



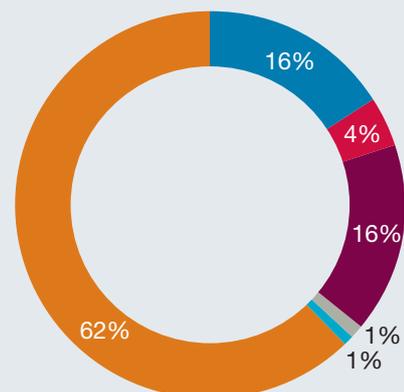
**Figure 13:** Sources of water withdrawal<sup>13</sup>

- Surface water
- Groundwater (renewable)
- Municipal water
- Recycled water
- Produced/process water
- Wastewater
- Brackish/salt water



**Figure 14:** Destinations for water discharges

- Surface water
- Municipal treatment plant
- Saltwater
- Injection for production/disposal
- Aquifer recharge
- Storage/waste lagoon



<sup>13</sup> Primary freshwater withdrawals (surface water and ground water) are distinct from secondary withdrawals (all other categories in the figure)

## Key messages

### Guest comment: Irbaris

#### Water accounting terminology and methodologies

There is a great deal of confusion surrounding water metrics: how they are defined, how they are used and how they are reported. Some of the responses that underlie this report illustrate this confusion, and it appears that some companies do not fully understand the implications of the data that they are disclosing.

It is important to improve both companies' and investors' understanding of different metrics and how they should be used or interpreted. This will help ensure that the metrics disclosed through the CDP are consistent with the definitions employed by groups such as the UN, WBCSD, the Water Footprint Network and others. It will also ensure that the insights derived from the data are much more robust and valuable.

Water metrics, however well-defined or tracked, are of limited use without context. It is difficult to draw meaningful conclusions from, for example, aggregated data on consumption or trends in withdrawals for individual facilities, without a proper understanding of what else is happening within a particular watershed.

The water metrics summarised in this report demonstrate the increasing willingness of companies to track key metrics and indicate broad trends across companies, but for true insights into risks and opportunities, readers should delve into the responses of individual companies.

To help companies navigate some of the complexity in this area, the CEO Water Mandate has recently released the final version of its disclosure guidelines<sup>14</sup>, which includes standardised definitions and guidance to companies on specific metrics (see table below). It is expected that signatories to the Water Mandate and other companies will start to refer to these guidelines. One notable topic that forms part of the guidelines and that is missing from the current metrics disclosed by South African companies is providing WASH (Water, Sanitation and Hygiene) services in the workplace. Given the importance of social development in South Africa, this will hopefully be a focus of future disclosure efforts.

<sup>14</sup> See: <http://ceowatermandate.org/files/Disclosure2014.pdf>

	Content	Scope
Basic	<ul style="list-style-type: none"> <li>• Profile metric: Water withdrawals in water-stressed or water scarce areas</li> <li>• Profile metric: Percent of facilities adhering to relevant water quality standards</li> <li>• Profile metric: Average water intensity in water-stressed areas (as appropriate)</li> <li>• Percent of facilities with fully functioning WASH services for all workers</li> </ul>	Companywide
Advanced (includes basic reporting)	<ul style="list-style-type: none"> <li>• Water withdrawals by source type</li> <li>• Water intensity</li> <li>• Water consumption</li> <li>• Discharge by destination type</li> <li>• Water performance in the value chain</li> </ul>	Location-specific    Value chain

**KEY MESSAGE 3: South African companies continue to demonstrate greater vulnerability to water-related issues than their global counterparts. Almost all of the respondents report exposure to significant water-related risks in their direct operations, many of which are seen as likely to materialise within the short term. Half of the respondents have already experienced water-related impacts in the reporting year.**

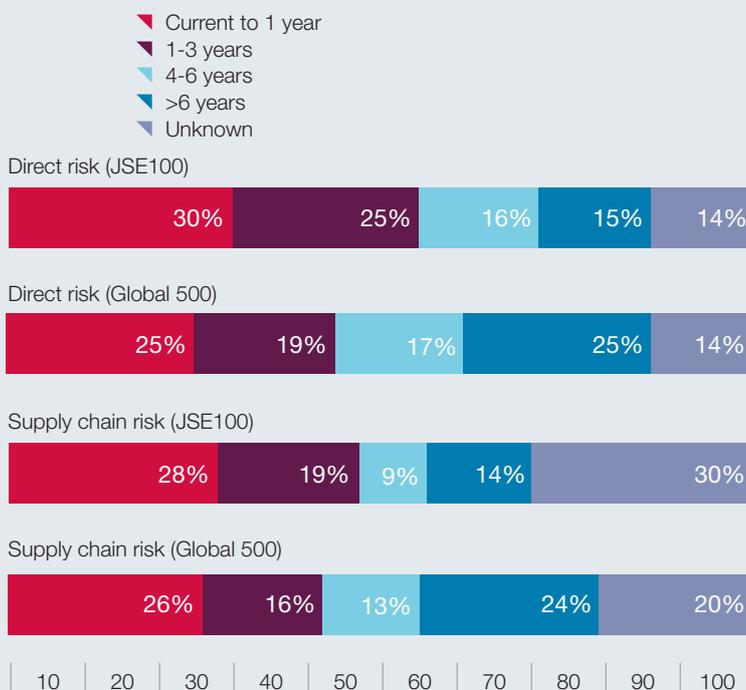
This year, 90% of respondents report that their direct operations are exposed to water-related risks, up from 86% in 2013, and significantly more than the 66% of the Global 500 who report risk to their direct operations. The JSE100 respondents seem to see significant potential for water issues to impact their longevity and growth, with 28 companies (93% of respondents) rating access to fresh water as important or vital for their operations, and 26 companies (87%) evaluating how water quality could affect their growth strategy. Eight Global 500 companies identified<sup>15</sup> 12 risks to their operations within South Africa, the most

common risks being increased water scarcity and increased water stress.

The reported risk timeframes also differ between South African and Global 500 companies. The JSE100 respondents see risks in their direct operations to be more immediate, with 55% of companies believing risks will materialise within three years, as compared with 44% in the Global 500. This difference is less marked within supply chains, with JSE100 respondents believing that 47% of risk will occur within three years compared with 42% of their global peers (Figure 15).

Installation of increased clean-dirty water separation infrastructure, due to the high rains at Idaupriem mine cost between USD 1 and 5 million.  
**AngloGold Ashanti**

**Figure 15:** Exposure to water risks in direct operations and supply chain: JSE100 and Global 500



<sup>15</sup> The number of risks reported by Global 500 companies here excluded the Global 500 companies that are classified as JSE100 companies.

## Key messages

The largest category of risks as classified by the questionnaire are physical risks (Figure 16 and Figure 17). Physical risks were reported by 25 companies (83%), and constitute 109 of the 189 risks (58%). Companies see declining water quality, flooding, climate change and water scarcity as threats to their direct operations (Figure 18). The Energy & Materials sector identified 68 of the physical risks (62%), followed by Consumer Discretionary & Consumer Staples identifying 23 (21%). Projected water scarcity was a particular concern to this sector.

Regulatory risks were identified by 14 companies (47%) and constitute 46 of the 189 risks captured (24%). The most common regulatory challenges relate to the increased difficulty obtaining operations' water permits, and higher water prices. Companies in the Materials sector are particularly concerned with the complexity, delays, costs and potential reputational issues associated with the water permitting process administered by the Department of Water and Sanitation.

The majority of all reported risks (87%) are perceived as being 'probable' or 'highly probable', and as having a

financial impact of 'medium to high' (84%)<sup>16</sup>. For physical risks, the 'probable' and 'highly probable' increases to 92% and for regulatory risks up to 100% (Figure 19). Increased water stress is the highest impact and most probable risk to manifest itself and companies recognise the immediacy and the impact of physical and regulatory risk on their direct operations, with 66% of physical risks and 53% of regulatory risks expected to materialise within three years.

The probability and financial impact of climate risk and water risk is seen to be similar by companies, with 76% of climate risks<sup>17</sup> and 74% of water risks having a medium or higher impact and a probable or higher likelihood. Given that respondents view regulatory risk as probable it is perhaps surprising that only nine companies (30%) are engaging with public policy makers as part of their response strategy and only five companies have goals that include engagement with public policy makers.

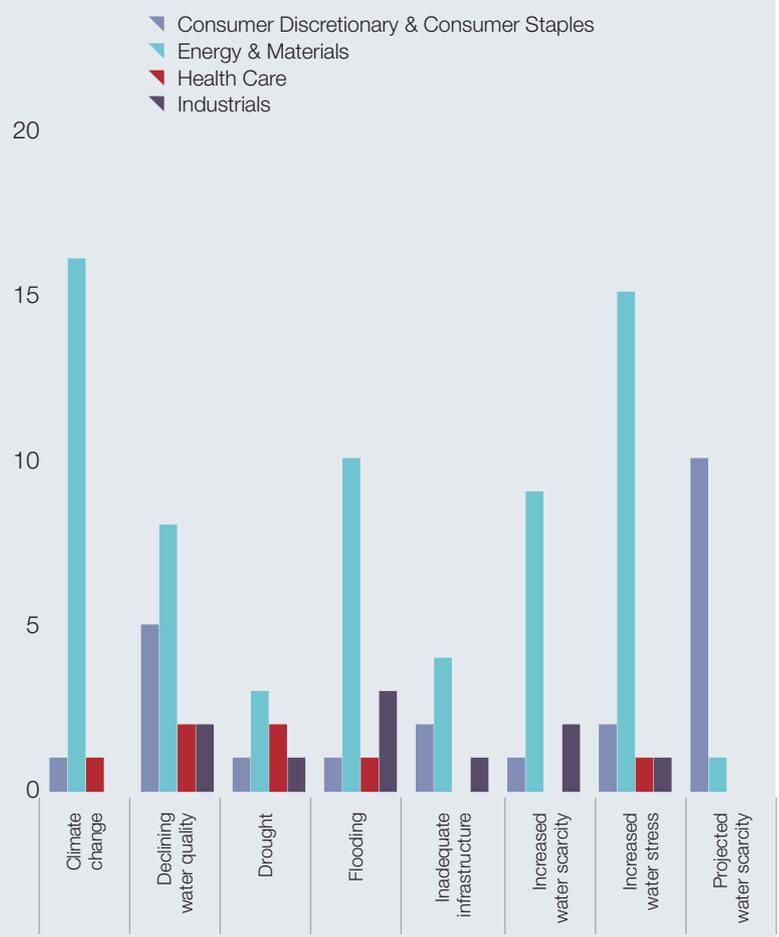
<sup>16</sup> This analysis excludes risks that have unknown or unspecified impacts, likelihood and timeframes.

<sup>17</sup> <http://www.nbi.org.za>

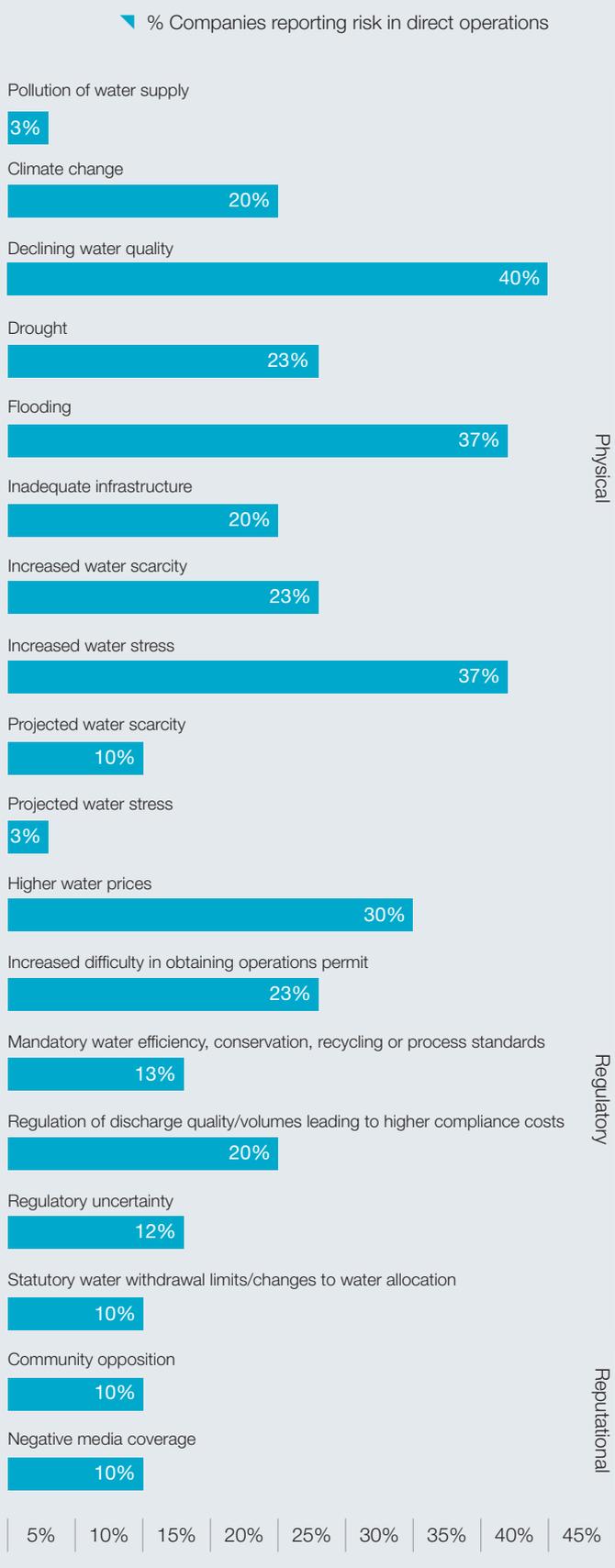
**Figure 16:** Number of reported risks and number of companies reporting each category of risk



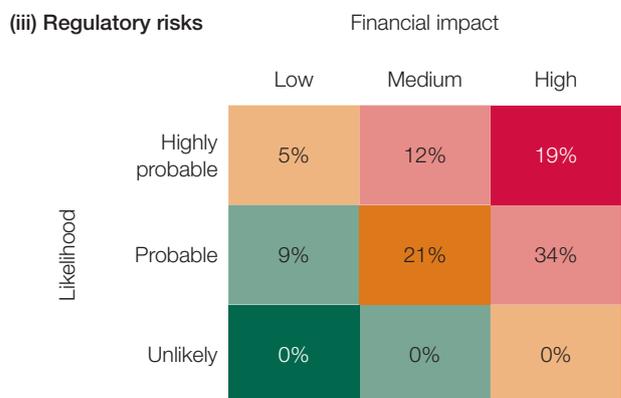
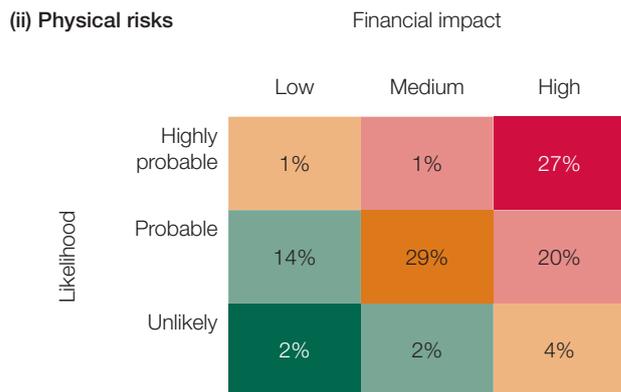
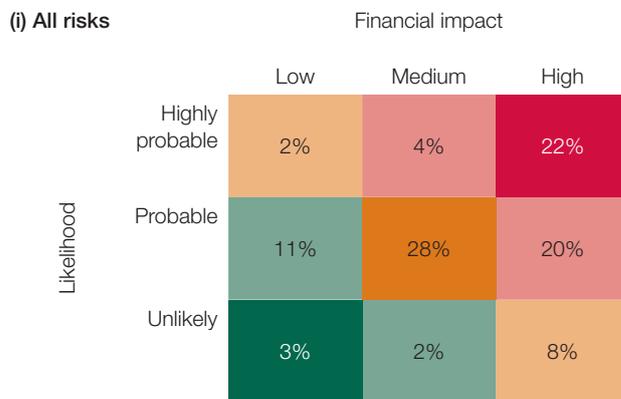
**Figure 17:** Number and category of physical risks identified by each sector



**Figure 18:** Nature of water-related risks affecting companies in their direct operations



**Figure 19:** Risk perception matrix for (i) all risks, (ii) physical risks & (iii) regulatory risks<sup>18</sup>



<sup>18</sup> With regard to magnitude, 'High' covers Medium-High and High; 'Medium' covers medium; and 'Low' covers Low-Medium and Low categories.

## Key messages



Water is a critical resource for our business; it is also a high risk given that more than 70% of our mines are in water-stressed areas. To maintain our licence to operate, we have to manage water quality and efficiency effectively and cannot compromise the water rights of other users. We can also play a leadership role in our water catchments through partnerships and by increasing the shared benefits of our water-related infrastructure development.

### Anglo American

Lost sales of R15-20m due to flooding and extreme weather events which caused significant damage to fruit and vegetable crops. In response we are working on an agricultural climate resilience programme across fruit and vegetables with WWF, including infrastructure investment on farms.

### Woolworths Holdings Ltd

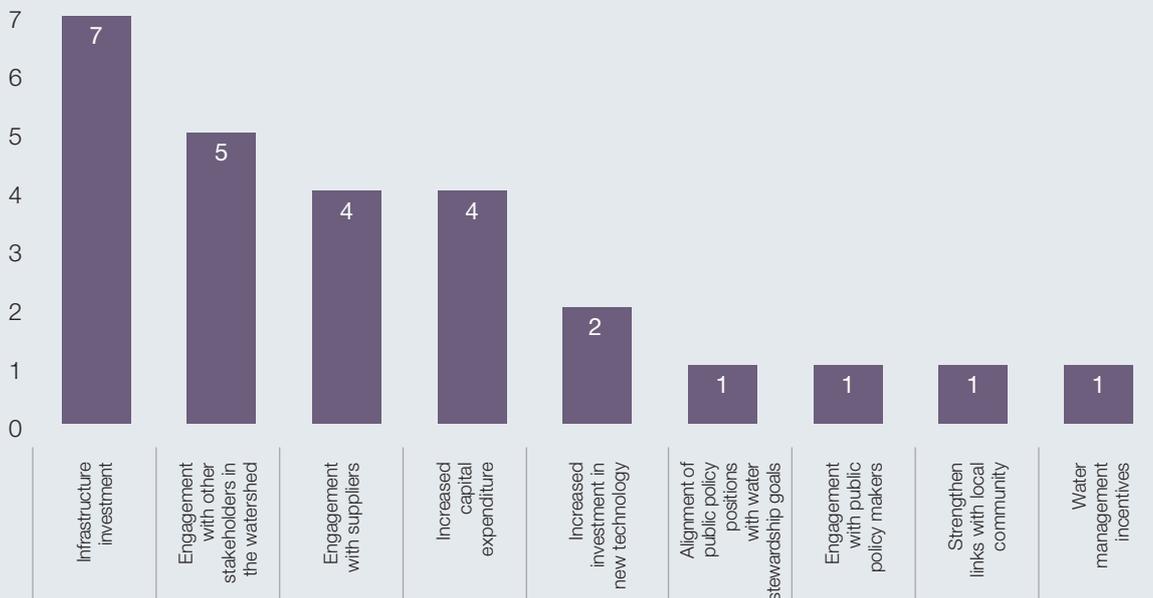


This year, 50% of respondents report having experienced detrimental water-related impacts during the reporting period.<sup>19</sup> A selection of these impacts and companies' strategic responses are shown in Table 3. This continues to be notably higher than the 30% of companies in the Global 500 sample. The most commonly reported impact amongst South African respondents was flooding, identified by 23% of respondents, followed by declining water quality (17%), drought (13%) and regulation of discharge volumes (10%). This compares with the most commonly reported risks, declining water quality (40%), flooding (37%), increased water stress (37%) and higher water prices (30%).

The most prevalent response strategy to the direct impacts that are already being experienced, is to increase investment in infrastructure. This was reported by seven respondents (47% of those experiencing impacts) (Figure 20). This is followed by increased engagement with other stakeholders in the watershed, greater engagement with suppliers, and increasing capital expenditure.

<sup>19</sup> Unfortunately it is not possible to make a direct comparison with the previous year due to changes in the questionnaire.

**Figure 20:** Number of companies and their response strategies for addressing recently experienced water-related impacts<sup>20</sup>



<sup>20</sup> Excludes "other" impacts, which companies were able to specify themselves

**Table 3:** A selection of water related impacts and companies' response strategies to those impacts

Organisation	GICS Sector	Impact Classification	Impact to Company	Description of Impact	Financial Impact	Response Strategy	Description of the Response Strategy	Number of Risks Identified by the Company
Illovo Sugar Ltd	Consumer Staples	Physical-Flooding	Supply chain disruption	Floods in our outgrower cane supply area resulted in a loss of sugar cane production.	537 ha of cane was lost in March 2014 equating to R7,465,246 revenue lost in the 2014/15 season with a further R15,808,756 projected in the 2015/16 season.	Engagement with suppliers		4
Mediclinic International	Health Care	Physical-Flooding	Closure of operations	Hospital of 238 beds were completely evacuated. No hospital operations possible for 10 days.	High	Infrastructure investment	Major civil works were done for future flooding due to climate change.	4
Royal Bafokeng Platinum Ltd	Materials	Physical-Declining water quality	Higher operating costs	Declining water quality provided to the operations could cause challenges for equipment and increase the need for water treatment plants.	The company is currently constructing a R38million water treatment plant to treat the process water to a quality that it can be re-used.	Infrastructure investment	The company is currently building a R38million water treatment plant to treat the process water to a quality that it can be re-used. This plant will treat 4ML/d and replace the potable water used at the Concentrator Plant.	5
SABMiller	Consumer Staples	Physical-Declining water quality	Higher operating costs	Potential for water quality related risks. Please note however that our operation(s) in the country have been identified as likely to be exposed to the risk. This does not however imply these operations will be exposed to such risks.	A detailed cost structure associated with this opportunity has been evaluated as part of our internal Water Risk Assessment Process and is being continuously reassessed to inform the decision making process but is not for public disclosure.	Engagement with other stakeholders in the watershed	SABMiller's operation in Colombia entered into a partnership with The Nature Conservancy, Colombia's National Parks administration, and the Aqueduct and Sewage Company of Bogotá to improve the quality of the drinking water consumed by people in Bogotá, and ecosystem conditions, in particular by preventing excessive sediment delivery to the Chingaza and Tunjuelo Sumapaz rivers. This would also have important implications on the quality of water received by the brewery from the municipality.	10
Woolworths Holdings Ltd	Consumer Discretionary	Physical-Projected water scarcity	Supply chain disruption	Future supply chain shortages of food products from this area due to increasing water scarcity and competition for water resources.	R25 million	Engagement with suppliers	Drive water efficiency and quality management through the farming for the future programme.	5

## Guest commentary: SABMiller

### Partnerships to drive water stewardship



Given the scale of use by an ever increasing population and the importance of this vital natural resource, responsibility for water management cannot be placed solely at the door of government.

South Africa is a water-stressed country and is facing a number of water challenges and concerns, including security of supply, environmental degradation and resource pollution. Projections indicate that the country will experience a 17% gap between water demand and supply by 2030. Given the scale of use by an ever increasing population and the importance of this vital natural resource, responsibility for water management cannot be placed solely at the door of government. Companies and individuals also have a role to play; and in this respect SAB is no exception.

While we continue to drive water efficiency within our operational environment, SAB has also adopted a partnership approach to address shared water risks both upstream and downstream of the value chain. This thinking is further reflected in our new sustainable development ambition, “Prosper”, where one of the five shared imperatives commits us to “Securing the water supplies we share with local communities through partnerships to tackle shared water risks”.

We continue to invest in technological and process improvements to be able to recycle and reuse water across all our operations, without compromising the quality of our products. Since 2009, we have reduced water consumption by over 20% within our breweries, from 4.5 litres of water per litre of beer to 3.6 litres. We have further committed to reduce water use to 2.89 litres of water per litre of beer by 2020. Through conducting comprehensive water risks assessment, we have appreciated the importance of working with stakeholders, particularly municipalities, to address shared water risks. We have partnered with Polokwane Municipality and GIZ to investigate options to improve the functioning of Polokwane Waste Water Treatment Works. Our Ibhayi brewery partnered with Nelson Mandela Bay Municipality as part of “Business Adopt-A-Municipality” initiative to strengthen the municipality’s water and waste water treatment technical capacity.

After undertaking a detailed water footprint exercise, we discovered that the agricultural supply chain accounts for most of our water usage. As part of the water futures initiative, SAB has partnered with WWF-SA and GIZ to understand the water risks for the hops industry in South Africa. The results indicated that alien vegetation posed the greatest threat to water security, with flows potentially reduced by 40% if left unchecked. Now a joint project involving SAB, WWF-SA and other stakeholders aims to clear an initial 3,000 ha of land affected by alien vegetation. For the barley growing region, we have partnered with WWF-SA to develop “Better Barley Better Beer” guidelines, which seeks to promote sustainable farming practices through efficient resource utilisation, including water.

SAB also understands that water is critical to sustaining livelihoods of communities where we operate. In one of our community projects called “Let the River Flow”, we have partnered with a local NGO, where we invest resources to clear alien vegetation and debris along the Wilge River in the Free State. To date, over 4 million hectolitres of water have been saved and released back to the system for community benefit. Furthermore, 22 direct jobs have been created for local youth through the project.

At a national level SAB has partnered with the Department of Water and Sanitation and other stakeholders to form a Strategic Water Partners Network (SWPN) to address the country’s water challenge. It is clear that the ability of a single company to shape the water future of the country is limited. Therefore, SAB believes that it is only through collective action and effective partnerships are we going to secure this critical resource.

#### **Muzi Chonco**

Sustainable Development Executive, SABMiller



Water is a complex issue and it appears that companies require further support to effectively account for and manage risks at the facility, water-shed or river basin level. The NBI plans to address this need through a series of workshops in our recently launched Thought Leadership Series.



## Guest comment: Tiger Brands

### Improving water efficiency



The impacts will be felt across all water users, and will lead to a greater efficiency of use as agriculture, business, communities and other users all seek to access the resources they need.

Water scarcity and quality are becoming critical issues of immediate relevance to **Tiger Brands**. Our reliance on water-intensive raw materials and the fact that some of our operations are in water-stressed regions makes water management an imperative focus area.

Water is thus one of the key sustainable development priorities for Tiger Brands. We recognise that we have a duty to promote responsible water use throughout our operations, and we encourage our suppliers to do the same. We also acknowledge that water is not only used at the primary manufacturing sites but rather touches the entire value chain with varying degrees of intensity.

As the impacts of climate change are felt, the issue of water scarcity will become more complex, and less predictable. In order to understand where we have manufacturing sites in water-scarce locations we use a combination of publically available and tailored tools to identify risks in our direct operations and supply chain. This information is used to target water efficiency initiatives and support an on-going risk-based approach for our factories. Tiger Brands continues to develop its understanding of water risks in manufacturing and respond to the commercial and reputational risks that water issues pose to our business, both directly and indirectly.

We also recognise that the vast majority of water used in the value chain, for a number of the products we produce, is in the agriculture phase. Water prices are projected to rise and water allocations will become more stringent. These two factors, coupled with more variable rainfall patterns, will have a direct impact on our agricultural supply base. The impacts will be felt across all water users, and will lead to a greater efficiency of use

as agriculture, business, communities and other users all seek to access the resources they need. It is a priority to understand which agricultural areas face risks of water scarcity and to work with farmers to encourage them to use water more efficiently. Our performance is driven by continuous improvement initiatives at a site level to reduce, reuse and recycle water. Key initiatives include:

- ▶ Sub-metering of water usage, giving us more accurate information on which processes have potential for water reduction;
- ▶ Increased awareness among employees and implementation of simple solutions;
- ▶ Water audits and improvement plans in the manufacturing sites with the biggest water footprint;
- ▶ Projects that deliver both energy and water savings have been identified and financially quantified for investment needs and the potential savings that will be realised; and
- ▶ The drive for the optimisation of water and water treatment chemicals used in boilers and cooling towers

Tiger Brands works to protect the quality of the water in the countries where we operate. We are committed to ensuring that all our manufacturing sites apply high standards for water discharge. The Group water management policy continues to guide the multiple business units on our goal of committing to an effective environmental governance priority within our sphere of influence (in this case being water). It is without doubt that water is central to our business, namely in two facets, as a primary ingredient in our brands and for general use in our manufacturing processes.

#### **Julie Ntsekhe**

Group Manufacturing Excellence Manager, Tiger Brands

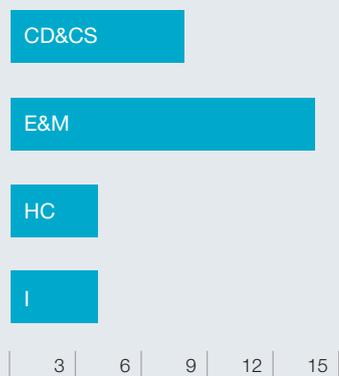
**KEY MESSAGE 4: The disclosure on water-governance measures suggests that water-related issues are being considered at an appropriately strategic level among the responding companies. It is not always clear, however, whether this is translating into appropriate levels of action within companies' operations and across their supply chains.**

All 30 of the JSE100 respondents covered in this analysis have board-level oversight of water (as outlined in Figure 21). This may in part be a function of compliance requirements regarding the establishment of a social, ethics and transformation board committee with a specifically defined remit. Twenty-six companies (87%) have specifically integrated water into their business strategy, while 19 of these (63%) have set goals and

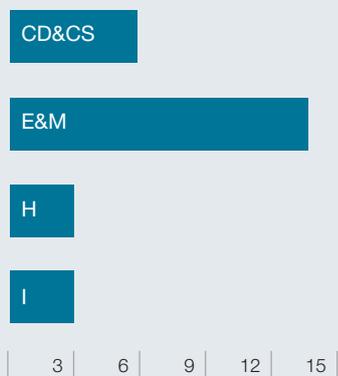
targets. Ten companies (33%) meet all of these criteria, and also have systems in place to assess water risk within both their direct operations and supply chain. Of the four companies that have not yet integrated water issues into their business strategy, two companies are in the process of doing so; the remaining two companies do not believe that water is a substantive risk.

**Figure 21: Nature of strategic integration of water issues amongst respondents**

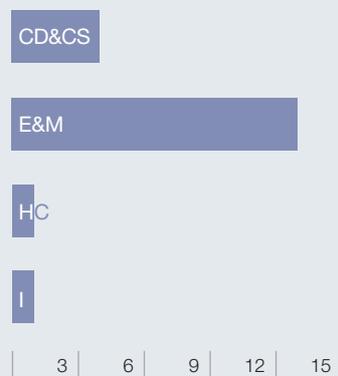
Number of companies with board oversight for water



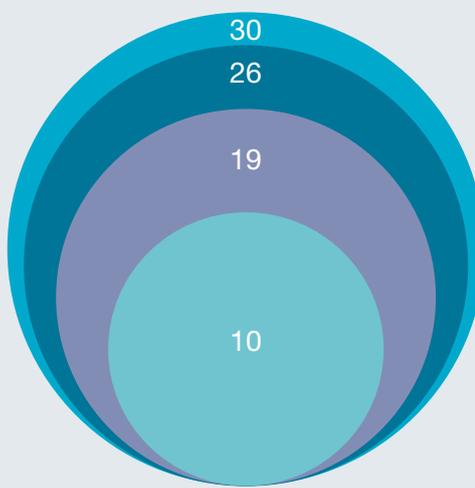
Number of companies with board oversight for water and integrating water into company strategy



Number of companies with board oversight for water and integrating water into company strategy and setting goals and targets



Number of companies with board level oversight for water and integrating water into business strategy and setting goals and targets and having a company wide risk management process that includes supply chain as well as direct operations



Total number of respondents

## Key messages

Twenty-seven companies (90%) have a water policy in place that details specific targets and/or goals. Fifteen of these are public, company-wide water policies. Interestingly, despite the fact that 63% of South African respondents include local communities and other local water users level in their water risk assessments (which is high in comparison with the Global 500), only five company policies specifically acknowledge the human right to water and sanitation, an issue that is highlighted in the CDP questionnaire.

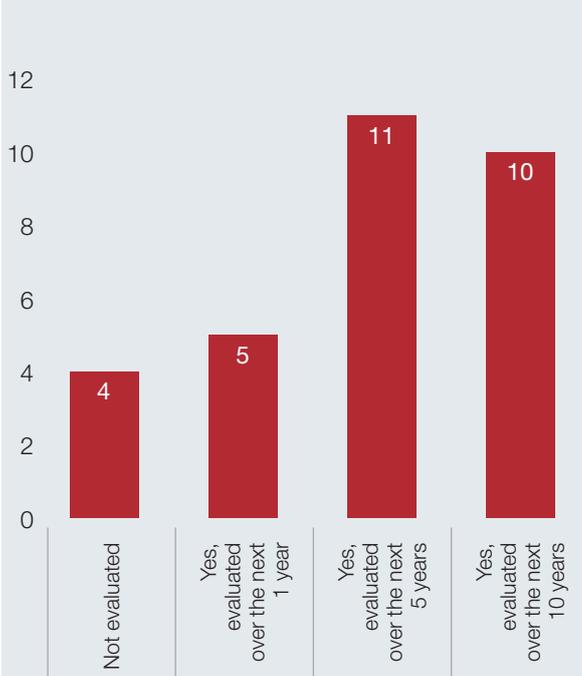
Nineteen companies (63%) have targets for water stewardship, with a total of 37 separate targets reported. Of these targets, 18 span three years or less (49%) and only five (14%) reach to 2020. These targets should be viewed in the context of the time horizons for which companies have assessed how water constraints could affect their business growth strategies (Figure 22). This could mean that although the majority of companies are evaluating water over timeframes of five years or longer, their targets do not correlate with their timeframes for impact of water issues on their growth strategy.

While one needs to be cautious in making direct comparisons of these targets between years and

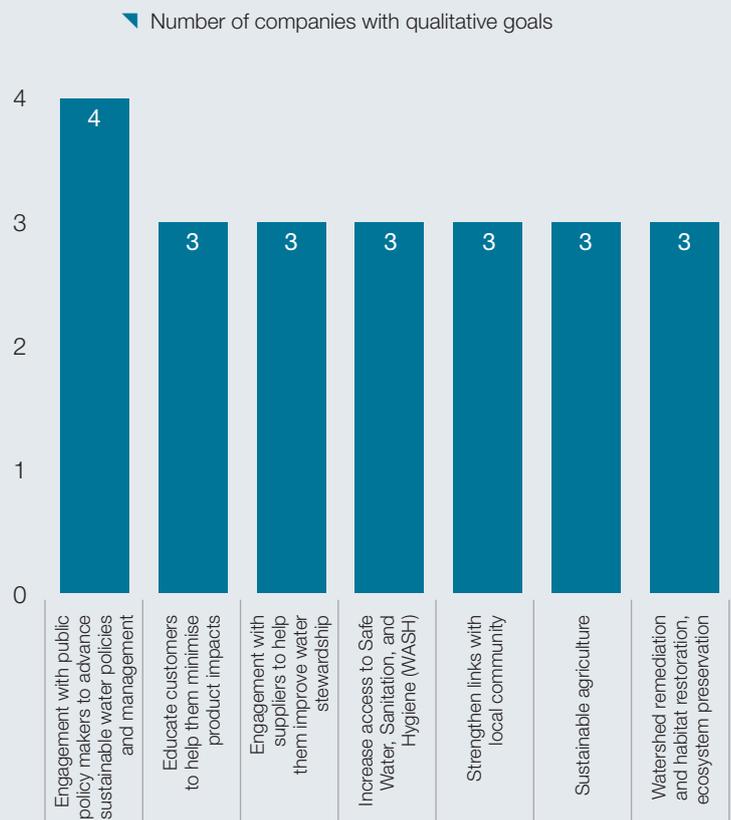
between respondents, it appears that many companies have made good progress against their targets, with 21 of the stated targets (over 50%) achieved. The ambition of these targets varies widely between respondents as shown in Table 4 and Appendix 1. Although these targets suggest that companies are taking action, these targets need to be understood within the broader context of South Africa and the projected level of water stress.

Forty-seven water-related goals are reported by 22 companies (73%). Many companies are setting goals outside of their direct area of influence, with half of all companies setting goals that involve engagement outside of their operations, or that enhance community access to water or that involve watershed remediation (Figure 23). Based on the CDP responses, South African companies lag slightly behind the Global 500 in their understanding of water stewardship being a collaborative and complex issue. Given that South Africa is at higher-risk than the global average to water-related issues, companies need to embrace collective action as a means to helping mitigate their water-related risk exposure. It seems that more companies need to understand the risks they face at the river basin scale.

**Figure 22:** Number of companies evaluating the impact of water quality and/or quantity on their growth strategy



**Figure 23:** Number of companies reporting specific goals<sup>21</sup>



<sup>21</sup> Excludes all "other" goals, which companies were individually able to specify.

**Table 4:** Selected targets from the JSE100 sample

Company	Category of target	Motivation	Nature of target
AECI Ltd Ord	Absolute reduction of water withdrawals	Risk mitigation	AECI has set an interim target for 2013 based on the resource efficiency assessments which were conducted at 15 prioritised sites. The interim target is to reduce water consumption by 14% across the Group based on the 2011 baseline.
Anglo American Platinum	Absolute reduction of water withdrawals	Risk mitigation	In 2013, our water withdrawal had reduced by 4% compared to 2012, making an overall reduction of 17% against the 2009 baseline. This was just shy of our 2013 target of a 5% reduction. Our water target for 2014 is 36 800 ML, up from 33 410 ML of new water used for primary and non-primary activities.
AngloGold Ashanti	Absolute reduction of water withdrawals	Shared value	5% reduction in annual withdrawal, which leads to both cost reduction as well as improved benefits to community and ecosystem.
Bidvest Group Ltd	Reduction in consumptive volumes	Cost savings	Bulk Connections (Freight): To increase amount of water recycled. The project has not yet been implemented, but the necessary infrastructure will be installed soon.
Exxaro Resources Ltd	Absolute reduction of water withdrawals	Water stewardship	5% saving of absolute potable water used.
Kumba Iron Ore	Reduction in consumptive volumes	Water stewardship	Kumba aims to decrease its water consumption by 10% to 15% against a business-as-usual (BAU) forecasted consumption in 2020. The 2020 target is based on a 2010 BAU calculation.
Sasol Limited	Reduction of water intensity	Water stewardship	For Synfuels a voluntary 5% improvement in water use efficiency by 2015 was committed to from a 2010/11 baseline.
Woolworths Holdings Ltd	Water pollution prevention	Water stewardship	30% reduction in water used by produce suppliers forming part of our Farming for the Future programme.



Our evaluation of the impact of water on the company's growth strategy is embedded across our risk assessment process that includes both water volume and water quality considerations. This feeds into a business plan that is developed for each region we operate in, over a 40 to 50 year time period. The business plan considers predicted water demand requirements by all other water users (gathered through forums and engagements with governments) and potential supply (based on international and local models and evidence where available), to manage our operations and reach our growth goals.

In South Africa, the Integrated Water and Waste Management Plan (IWWMP) serves as a basis for a Use Licence Application (IWULA) and requires a risk based approach to identify, rate and rank the aspects, impacts and risks related to a water use activity. AMPLATS conducts water risk assessments, for our South African operations, in compliance with the IWWMP requirements.

Water quality and quantity is of significant concern to AMPLATS as it remains in the top 15% of risks for the company. Water security is rated as one of the top 10 risks. Water quantity is assessed as part of our risk assessment process using the WRI Water Aqueduct Tool using the time period of the present to 2025. The company's water efficiency target tool (WETT) is applied at the operational level to monitor operational water balances. Specific risks and issues related to water are identified and tracked annually in a performance tracking process closely related to our integrated reporting process. Issues that are of concern under-go a materiality review on a quarterly basis and include input from internal and external stakeholders. Water risks and water related performance is then applied to 20-year water supply scenarios which are then used to create water supply strategies at our operations. Understanding and tracking water related risks is of significant importance to the growth of both current and future operations at AMPLATS.

#### **Anglo American Platinum (AMPLATS)**



## Key messages



Water demand and scarcity is increasing, to varying degrees, within all basins in which our operations are situated. This is projected to impact availability as well as abstraction permit allocations. By working to improve the effective use of water within our operations we aim to increase our production without significantly altering our overall consumption. Through improving efficiency of irrigation water use and resilience of our operations we aim to gain competitive advantage.

### Illovo Sugar Ltd

Kumba has the opportunity for increased brand value through the provision of water to local communities. This allows Kumba to show good corporate citizenship. As part of this strategy a new water pipeline for Sedibeng Water has been constructed as part of Sishen Expansion.

### Kumba Iron Ore



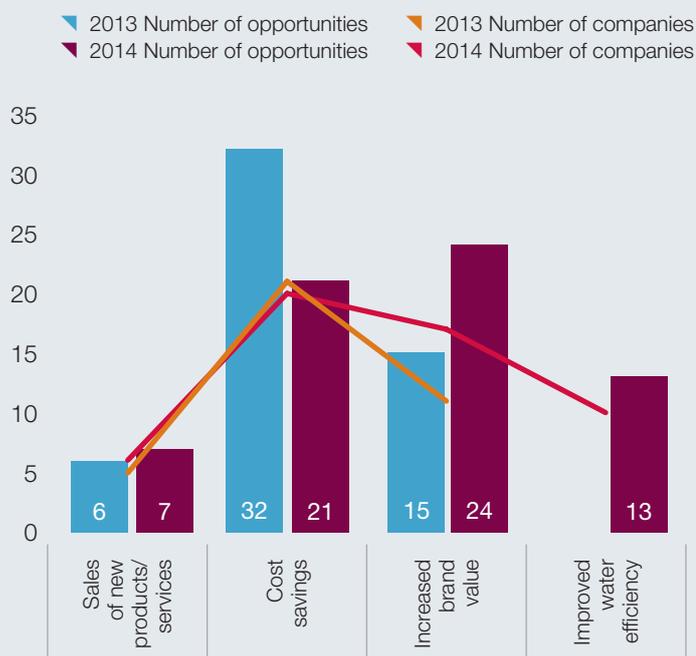
### KEY MESSAGE 5: There has been an increase in the number of respondents identifying water-related opportunities, including a particular increase in the number of companies identifying opportunities for enhancing brand value.

Twenty-seven respondents (90%) identified 74 specific water-related opportunities, as compared with 85% of respondents last year (Figure 24), and 75% of the Global 500 (75% in 2013). Although more of these opportunities relate mainly to improved water efficiency and cost management opportunities, compared to innovation in new products and services, there has been a marked increase this year in the number of companies identifying opportunities to increase brand value through their activities.

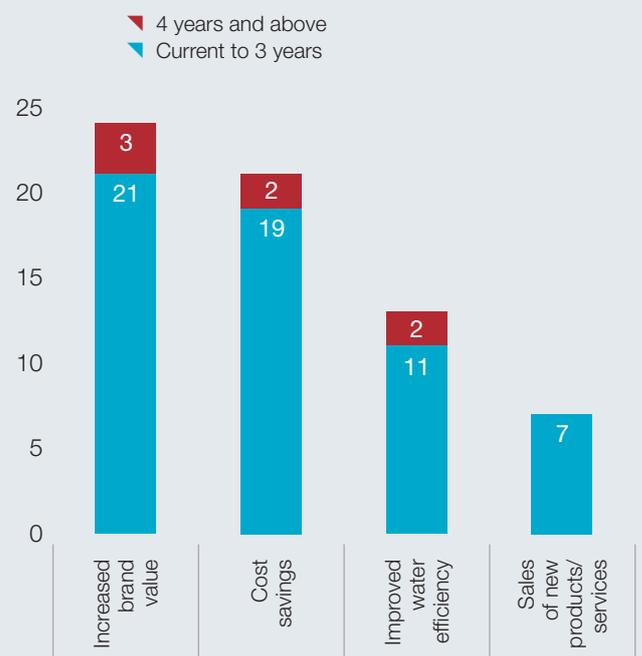
The Materials sector identified the most opportunities relating to increased brand value, through their activities in supplying water infrastructure and other water-related services to the communities surrounding their operations. Six of the 24 identified opportunities classified as 'increased brand value' mention water efficiency issues.

Given that cost savings and efficiency are some of the most common opportunities it is perhaps unsurprising that companies regard opportunities as being more immediate than risks, with 87% of opportunities materialising within the next three years (Figure 25).

**Figure 24:** Number of companies reporting opportunities and the category of opportunity<sup>22</sup>.



**Figure 25:** Number of opportunities and their timeframes



<sup>22</sup> Opportunities with a count of one or less are not included in figures 24 & 25.

## Self-selected respondents

In addition to the 58 companies from the JSE100 invited by CDP to participate in the Water Program, an additional eight companies from outside the target sample elected to respond to CDP. This is an increase on the six companies in 2013 and 2012. This year's self-selected respondents were **Allied Electronics Corporation Ltd (Altron)**, **Distell Group Ltd**, **Industrial Development Corporation**, **Sanlam**, **Scaw South Africa (pty) Ltd**, **South African Post Office**, **Sun International** and **Sheraton Textiles** (Table 5).

Two companies that responded in 2013 did not respond in 2014.

Although self-selected responses are not included in the data analysis, they are nonetheless interesting, adding further context to the companies that responded to CDP's formal request. Their growing numbers (albeit slowly) suggest that more companies are considering the strategic value of water in South Africa and hopefully these respondents will encourage more companies to respond.

**Table 5:** Self-selected respondents to the CDP water program in 2014 and their status in 2013 and CDP climate program in 2014

Company	GICS Sector	CDP water program response 2014	CDP water program response 2013	CDP climate program response 2014
Allied Electronics Corporation Ltd (Altron)	Industrials	AQ	AQ	AQ
Distell Group Ltd	Consumer Staples	AQ	/	AQ
Industrial Development Corporation	Financials	AQ (np)	AQ (np)	AQ (np)
Sanlam	Financials	AQ	/	AQ
Scaw South Africa (pty) Ltd	Materials	AQ (np)	AQ (np)	/
Sheraton Textiles	Consumer Discretionary	AQ (np)	/	/
South African Post Office	Industrials	AQ	AQ	AQ
Sun International Ltd	Consumer Discretionary	AQ	AQ (np)	AQ

### Key

AQ	Answered questionnaire
AQ	Self-selected response
AQ (np)	Non public self-selected response
/	No response



Computerised resource management systems on a small (home base) and large scale (agricultural, industrial etc. operations) will increase significantly within the next few decades. The development and production of these systems will be a huge market opportunity.

**Allied Electronics Corporation Ltd (Altron)**





The good news for industry is that companies can play a key role in implementing many of the solutions required, including through piloting systems to reduce losses and wastage, developing innovative ways to finance refurbishment and water conservation, providing technical assistance services and maximising on opportunities for private sector investment in the water sector.



## NBI comment

### Water pricing in South Africa – where to from here?

There are a number of factors putting pressure on water tariffs in South Africa.

Many of these factors are well-known to water practitioners, and include rising electricity costs (and related increased costs for water pumping), increased purification costs, the much-needed refurbishment of certain assets, and requirements for the development of new water infrastructure.

Challenges faced in water delivery at the municipal level also serve to put greater pressure on tariffs. In particular, the presence of poor billing systems in many municipalities, significant water leakage and high rates of non-revenue water (water provided for which no income is received) also places upward pressure on existing tariffs. As a result, the trajectory of future water tariffs is closely linked to the capacity of municipalities to deliver water services effectively over time.

The Department of Water and Sanitation (DWS) has indicated that South Africa needs to invest R70 billion per annum for the next ten years, in order to ensure the proper functioning of the water sector. Only 45% of this estimated figure is currently budgeted for in the national fiscus. Regardless of the exact investment required, it is clear that the landscape of water tariffs is set to change considerably over the next few years, with a potentially significant bearing on industry. For example, the DWS is currently engaged in a review of the national water Pricing Strategy, with this review expected to be gazetted for public comment at the end of 2014, or early in 2015. The outcomes of this review could see considerable changes to the pricing of water, including the further rollout of a waste discharge charge system that effectively applies a ‘polluter pays’ approach within water resource management.

There is still considerable debate to be held on the revised Pricing Strategy, but what is evident is that many of industry’s water pricing risks are located outside of the

company fence line. These risks, predominantly located at the municipal level, include the need to:

- ▶ Ensure effective billing systems, cost controls and revenue collection
- ▶ Implement water conservation and water demand management (WCWDM) as a priority
- ▶ Facilitate the sustainable financing of operations and maintenance (O&M), to ensure that the scarce capital allocated to the water sector is effectively utilised
- ▶ Understand the cost of providing water within each municipal region, and the ability of residents to cover these costs

The narrative of water pricing in South Africa clearly demonstrates requirements for greater efficiency and accountability, but also reflects on the difficulties faced by many smaller municipalities in providing a viable water service in the context of multiple challenges. As a result, while refurbishment and investment is much-needed in the sector, including for a growing population facing a warming climate, the issue of pricing and tariffs cannot be separated from the development of more effective water institutions at the local level.

The good news for industry is that companies can play a key role in implementing many of the solutions required, including through piloting systems to reduce losses and wastage, developing innovative ways to finance refurbishment and water conservation, providing technical assistance services and maximising on opportunities for private sector investment in the water sector.

#### **Alex McNamara**

Programme Manager: Climate Change and Water, NBI

*The NBI is currently undertaking research on water pricing in South Africa, with the key findings to be published in 2015. For more information, or to contribute to the study, please contact Alex McNamara (alexm@nbi.org.za).*

## Sector summaries

### Overview

Understanding the sector context in which each company operates enhances the assessment of company disclosure and performance, and facilitates more meaningful comparison between companies. This section reviews the 2014 water results in the context of the following four sectors and associated sub-sectors:

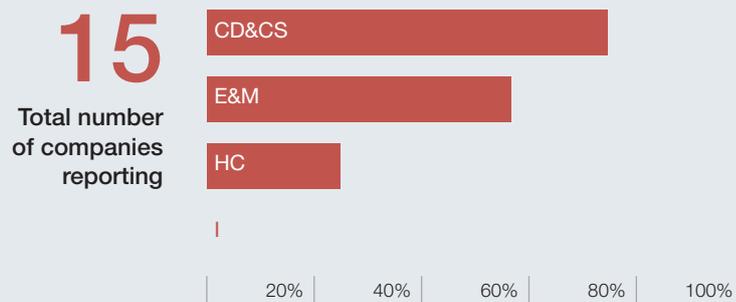
- ▶ **Consumer Discretionary & Staples** – comprising Multiline Retail; Speciality Retail; Food Products; Food & Staples Retail; Beverages; and Tobacco
- ▶ **Energy & Materials** – comprising Metals & Mining;

Oil, Gas & Consumable Fuels; Chemicals; and Paper & Forest Products

- ▶ **Health Care** – comprising Pharmaceuticals; and Health Care Providers & Services
- ▶ **Industrials** – comprising Construction & Engineering; Electrical Components & Equipment; and Industrial Conglomerates

Due to the small number of respondents from the Consumer Discretionary sector (two), this sector has once again been combined with Consumer Staples.

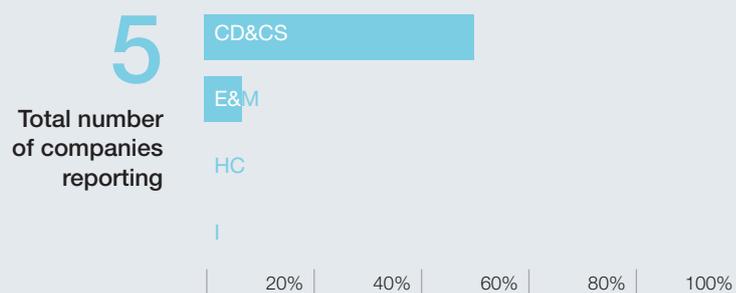
**Figure 26:** Respondents that have experienced water-related business impacts in the reporting year



**27**

Total number of companies reporting

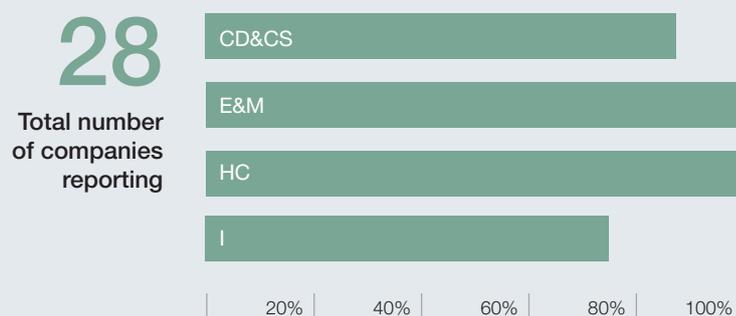
**Figure 27:** Respondents that undertake water risk assessments at the river basin scale



**17**

Total number of companies reporting

**Figure 28:** Respondents exposed to risks in either direct operations or supply chain



**16**

Total number of companies reporting

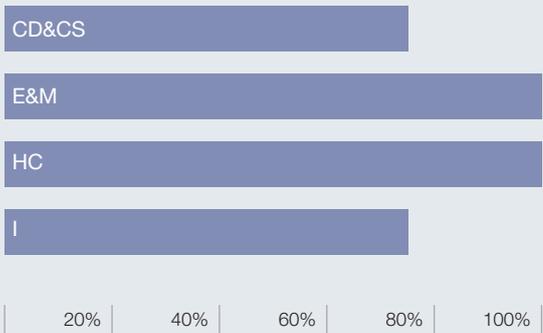
Only two companies were invited and responded from the Energy sector, so it has again been combined with Materials. No companies in the IT and financials sector were approached this year.

There is considerable variation in the response rate between the sectors, ranging from 38% (for the Consumer Discretionary & Staples sectors) to 80% (Health Care). It is interesting to note that the Consumer Discretionary and Staples sectors in South Africa show a significantly lower response rate than the Global 500

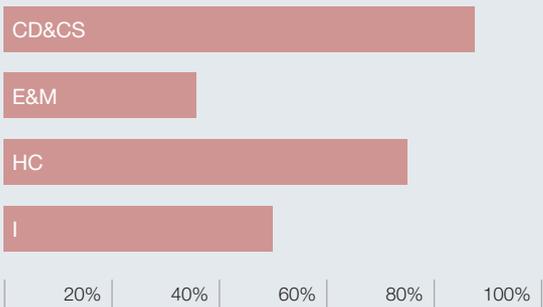
average (38% versus 59%). In a change from last year, the Materials & Energy sector shows a much improved response rate and is now slightly better than the Global 500 (67% versus 60%), while Industrials and Health Care are broadly in-line with the Global 500 sector response rates.

These two pages detail the response rates of some of the key indicators by sector (Figure 26 to Figure 34).

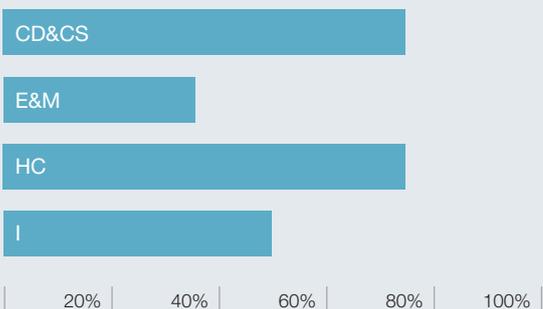
**Figure 29:** Respondents exposed to risks in direct operations



**Figure 30:** Respondents exposed to risks in supply chain

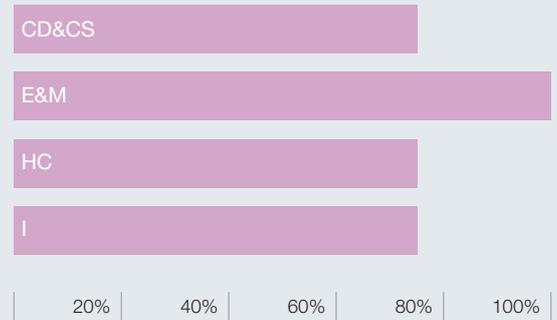


**Figure 31:** Respondents exposed to risks in both direct operations and supply chain



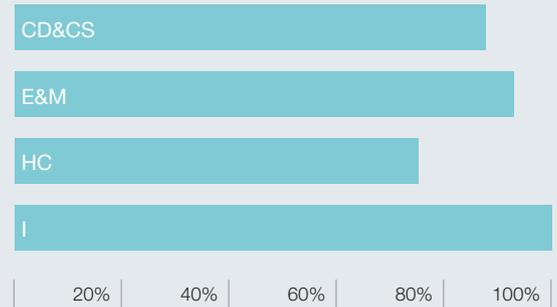
**Figure 32:** Respondents with water integrated into their business strategy

**26**  
Total number of companies reporting



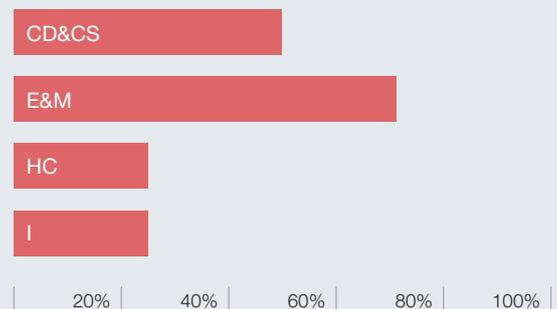
**Figure 33:** Respondents with a water policy with goals and guidelines for action

**27**  
Total number of companies reporting



**Figure 34:** Respondents with goals and targets in place

**16**  
Total number of companies reporting



## Consumer Discretionary & Consumer Staples

2014 RESPONSE RATE

**38%** (8/21)

▼ 2013 response rate: 38% (8/21)

**RESPONSE OF INDUSTRIES WITHIN THE SECTOR:**

**Consumer Discretionary**

- Hotels, Restaurants & Leisure (0 of 1) ▼
- Household Durables (0 of 1) ▼
- Multiline Retail (1 of 1) ▼
- Specialty Retail (0 of 3) ▼▼▼
- Textiles, Apparel & Luxury Goods (1 of 1) ▼

**Consumer Staples**

- Beverages (1 of 1) ▼
- Food Products (3 of 7) ▼▼▼▼▼▼▼
- Food & Staples Retailing (1 of 5) ▼▼▼▼▼
- Tobacco (1 of 1) ▼

**Key findings:**

- ▼ The response rate was the lowest of all the sectors, with only eight companies of 21 responding. One of these responses was non-public. It is concerning that the response rate of the Consumer Staples sector alone remains at 42%. One company that responded last year, declined to do so this year. The combined response rate of the Global 500 (59%) continues to be much higher.
- ▼ The low response rate is particularly concerning, given that the sectors had the highest incidence of impacts felt in the last year, with 75% recording impacts.
- ▼ Companies in this sector also have the highest incidence of risk assessment at the river basin level, with half of respondents conducting assessments at this geographical scale for their direct operations.
- ▼ There seems to be growing awareness in the sector of risks in the supply chain, with only one company in the sample unable to identify substantive risks in their supply chain.
- ▼ During the reporting period, three of the responding companies paid penalties or fines for significant breaches of discharge agreements or regulations. In total, eight penalties were reported by companies and one was classified as the highest number for any sector.

**50% of respondents assess risk at the river basin scale, the highest percentage of all the sectors**

**50%**

**75%**

**75% of respondents felt impacts from water-related issues in the reporting period**

**88%**

**88% of companies are exposed to risk in their supply chain**



Environmental risk is embedded and integrated in how we do business. All risks considered material to our business are tracked in our Group Risk Register. Each function has the necessary controls in place to address such risk(s). In terms of our leaf supply, a key focus of our Agronomy support is on reducing demand for water resources.

Other tools include the Biodiversity Risk and Opportunity Assessment (BROA), which takes a landscape approach to assessing and managing risks and opportunities for biodiversity and ecosystem services (which also includes the sustainable management of water resources). At a facility level, we have mapped our strategic factory footprint in terms of water security.

To date, we have developed our risk assessment methodology; identified those strategic factories at-risk and started to engage with key stakeholders in Nairobi through the Nairobi Water Roundtable.

**British American Tobacco**



## Energy & Materials

2014 RESPONSE RATE

**67%** (16/24)

▼ 2013 response rate: 60% (12/20)

**RESPONSE OF INDUSTRIES WITHIN THE SECTOR:**

**Energy & Materials**

Chemicals (1 of 2)	▼▼
Construction Materials (0 of 1)	▼
Containers & Packaging (0 of 1)	▼
Metals & Mining (11 of 15)	▼▼▼▼▼▼▼▼▼▼▼▼▼▼▼▼
Paper & Forest Products (2 of 3)	▼▼▼
Oil, Gas & Consumable Fuels (2 of 2)	▼▼

**Key findings**

- ▼ The sector had a slightly higher response rate (67%) than in 2013 (60%), and it was higher than the Global 500 rate (53%). The Global 500 response rate was low because the Energy sector recorded a 42% response rate. The sample size increased by four companies this year.
- ▼ All companies report that they are exposed to substantive risk in their direct operations. Between them, they identify 67% of all the risks. Seven percent of the sector assess risk at the river basin level and 36% are able to identify substantive risks in their supply chains.
- ▼ All respondents embed water into their business strategies, with 93% of companies having a water policy. This sector has the highest contribution of companies with targets and goals at 71%.
- ▼ Almost half of all opportunities (49%) reside in this sector.

**71% of respondents have goals and targets in place**

**71%**

**38%**

**38% of companies are exposed to supply chain risks, the lowest of all sectors.**

**100%**

**100% of companies integrate water into their business strategies.**



Industrial scale water consumption as well as non sustainable forest management can negatively impact natural water resources. A Group-wide risk management framework ensures the effective governance of material risks (such as water).

In a first step Mondi's water risk has been assessed by calculating the water footprint based on WFN methodology at operational and Group level. All material operations have been categorised using the Global Water Tool with respect to water stress.

The water impact assessments have been based on an internal methodology as well as the GEMI Water Impact Assessment Tool, and WWF Water Risk Tool and have been carried out at all our material manufacturing and forest operations. This increased our understanding of our impact on water sources, as well as of potential risks in water availability, allocation and costs.

**Mondi Plc**



## Health Care

### 2014 RESPONSE RATE

# 80%

(4/5)

▼ 2013 response rate: 80% (4/5)

### RESPONSE OF INDUSTRIES WITHIN THE SECTOR:

#### Health Care

Health Care Providers & Services (2 of 3)



Pharmaceuticals (2 of 2)



### Key findings

- ▼ The sector had the highest response rate (higher than the 72% Global 500, and matching the 80% in 2013), albeit from a small sample size. The same four companies that responded in 2013 did so again.
- ▼ One respondent (25%) experienced water-related detrimental impacts during the reporting year, the lowest of all the sectors. These impacts were geographically spread across South Africa.
- ▼ The sector has the lowest incidence of integrating water into business strategy (25%) and the joint lowest incidence of setting targets and goals (25%). This suggests that although they recognise the risk to their direct operations they are yet to take action.

100% of respondents are exposed to risk in their direct operations

# 100%

# 25%

25% of respondents have set goals and targets, the joint lowest of all sectors

# 25%

25% of companies experienced detrimental water-related impacts in the reporting year



The Enterprise-wide Risk Management (ERM) policy defines the risk management objectives, risk appetite and tolerance, methodology, process and the responsibilities of the various risk management role players in the Group. The ERM policy is subject to annual review and is benchmarked against the international COSO (Committee of Sponsoring Organisations of the Treadway Commission) framework and complies with the recommendations of the King III Report. It is supported by an ERM software application called CURA.

At operational level the Group has an environmental policy to identify aspects of its business that could have a significant impact on the environment as well as the water shortage and quality related risks and opportunities. All business divisions within the Group are required to implement appropriate environmental management systems such as the ISO 14001:2004 standard and (where appropriate) have it certified by an internationally recognised body.

#### **Mediclinic**



## Industrials

2014 RESPONSE RATE

**50%** (4/8)

▼ 2013 response rate: 63% (5/8)

### RESPONSE OF INDUSTRIES WITHIN THE SECTOR:

#### Industrials

Construction & Engineering (1 of 3) ▼▼▼

Industrial Conglomerates (2 of 3) ▼▼▼

Trading Companies & Distributors (1 of 2) ▼▼

### Key findings:

- ▼ The response rate for the sector declined to 50% from 63% in 2013. This compares with the Global 500 response rate of 50%.
- ▼ No companies have experienced detrimental impacts in the last year compared with 21% in the Global 500. No companies assess risk at the river basin scale where 21% of Global 500 companies assess risk.
- ▼ Direct risks are identified by 75% of respondents (up from 60% last year), as compared with 53% in the Global 500. Half of companies identify supply chain risk, more than last year's 40% and significantly more than in the Global 500 (26%).
- ▼ Although all companies in the sector have a water policy in place, only 25% of companies have set targets and goals. This suggests that although companies have the governance structures in place, they have yet to take action on the risks that have been identified.
- ▼ One respondent paid a penalty or fine for significant breach of discharge agreements or regulations.

**100% of respondents have a water policy containing goals and guidelines for action, the highest of all the sectors**

**100%**

**0%**

**0% of companies assess risk at the river basin scale**

**25%**

**25% of respondents have set targets and goals, the joint lowest of all sectors**



Risks, including those associated with water, are identified through detailed, robust systematic strategic planning, risk assessment procedures. These procedures engage all levels of the organisation and involve continual review and reporting at management, executive and board levels.

Identification and assessment of the risks begins with divisional management at asset level. These risks are reported to the group Risk and Sustainability committee bi-annually. This committee assists the board in recognising all material risks and in ensuring that the requisite risk management culture, practices, policies and systems are progressively implemented and functioning effectively.

Specific focus is placed on reducing water consumption, improving efficiency, engagement with leading principals and geographic and industry diversification as ways of managing water-related risks.

**Barloworld**



## Appendix 1: Company targets by sector

Organisation	GICS Sector	Description of target	% of target achieved
Woolworths Holdings Ltd	Consumer Discretionary	25% relative reduction in water consumption across stores per square metre.	100
Woolworths Holdings Ltd	Consumer Discretionary	30% reduction in water used by produce suppliers forming part of our Farming for the Future programme.	53
Woolworths Holdings Ltd	Consumer Discretionary	70% reduction of water consumption for head office complex.	60
Woolworths Holdings Ltd	Consumer Discretionary	30% relative reduction in water usage per distributable unit.	50
British American Tobacco	Consumer Staples	Water use target of 3.6 cubic metres/million cigarettes equivalent. This is 26% lower than our 2007 baseline.	99
British American Tobacco	Consumer Staples	Complete assessments of long-term water supply and demand requirements in 10 strategic operational sites identified as 'high-risk'.	20
SABMiller	Consumer Staples	In 2008 we set our breweries a target of 25% water use reduction by 2015. In the year ended 31 March 2014 an average water efficiency ratio of 3.5hl/hl1 (2013: 3.7 hl/hl) means we hit this target one year early, a credit to the efforts of our breweries to drive improvements throughout our manufacturing processes. In absolute terms, this year we used 621 million hl of water to produce our beer (2013: 667 million hl).	100
SABMiller	Consumer Staples	As of 1 April 2014 we have set ourselves with a new water intensity target to further reduce water use to 3.0 litres of water per litre of beer	0
Tiger Brands	Consumer Staples	The first phase of targets ran from 2009 - 2012. The Group reduced its water intensity of Kl water per tonne of product by 6%. The second phase began in 2013, with a target year of 2016. The target is to reduce the water intensity by 15% over 3 years. This reporting period is the base line year for the second phase, therefore progress has not yet been assessed. However a number of water initiatives have been implemented, therefore Tiger Brands provided a conservative estimate of progress.	5
Exxaro Resources Ltd	Energy	5% saving of absolute potable water used	100
Exxaro Resources Ltd	Energy	2013 Water Intensity < 2012 Water Intensity	100
Exxaro Resources Ltd	Energy	2013 Water Reused and Recycled > 2012 Water Reused and Recycled	100
Sasol Limited	Energy	For Synfuels a voluntary 5% improvement in water use efficiency by 2015 was committed to from a 2010/11 baseline.	2
Mediclinic International	Health Care	Litres use per bed day sold.	7
Bidvest Group Ltd	Industrials	Note that no Group-wide targets are set. But some businesses have set targets. 3663 (Europe): Achieve a reduction in consumption of mains water of 10% by 2015 from a 2010 baseline. This is to be achieved by using water more efficiently and by harvesting and recycling facilities. 3663 is now 8% ahead of target on a year on year basis.	65
Bidvest Group Ltd	Industrials	Automotive has set targets to reduce water consumption intensity as measured by water used per vehicles sold and vehicle service jobs.	0
Bidvest Group Ltd	Industrials	Bulk Connections (Freight): To increase amount of water recycled. The project has not yet been implemented, but the necessary infrastructure will be installed soon.	0
AECI Ltd Ord	Materials	AECI has set an interim target for 2103 based on the resource efficiency assessments which were conducted at 15 prioritised sites. The interim target is to reduce water consumption by 14% across the Group based on the 2011 baseline.	80
Anglo American	Materials	Reduction in abstracted volume relative to a projected business-as-usual.	100
Anglo American Platinum	Materials	In 2013, our water withdrawal had reduced by 4% compared to 2012, making an overall reduction of 17% against the 2009 baseline. This was just shy of our 2013 target of a 5% reduction. Our water target for 2014 is 36 800 ML, up from 33 410 ML of new water used for primary and non-primary activities.	80
Anglo American Platinum	Materials	Our 2013 target was to limit increase in water intensity to 0.0187 ML per refined ounce of PGMs and gold. The actual water intensity was 0.0107 ML. per refined ounce of PGMs and gold. Our 2014 water intensity target is 0.0117 ML per refined PGMs and gold.	100
Anglo American Platinum	Materials	To have zero/minimal impact regarding water discharges at mine sites.	100

Organisation	GICS Sector	Description of target	% of target achieved
AngloGold Ashanti	Materials	5% reduction in annual withdrawal, which leads to both cost reduction as well as improved benefits to community and ecosystem.	
AngloGold Ashanti	Materials	Elimination of lost mining days due to flooding and/or lack of water.	
AngloGold Ashanti	Materials	Improved sustainable operation, with each site not limited by water availability or discharge issues.	
BHP Billiton	Materials	In FY2013 we set a target that requires operations with water related material risks to set targets and implement projects to reduce their impacts on water resources. Each Asset provides a set number of projects annually. We calculate performance based on the number of projects completed in that year.	68
Gold Fields Limited	Materials	All operations are required to develop Water Management strategies and Plans in line with the Group Water Management Guideline by 2015. One of the key aspects to be considered in these plans is how water efficiencies can be enhanced and water usage reduced. Though a reduction of water usage is stimulated, it is up to the operations to set targets. Water usage reduction is not necessarily a relevant target for each of the operations and not always easy to quantify.	0
Gold Fields Limited	Materials	A Level 3 incident is a limited non-conformance or Non-compliance with limited environmental impact and is often a repeat of the same incident. In 2013, Gold Fields experienced three level 3 environmental incidents. Gold Fields target is to reduce level 3 environmental incidents by 50% during 2014.	50
Impala Platinum Holdings	Materials	The main emphasis of water reduction and efficiency projects is the reduction of potable water consumption, optimisation of industrial water use and the recycling of water. As an overall approach the focus is on increasing effluent recycling capacity. The refineries operation is a zero effluent site with some of the process water streams treated to boiler quality and re-used with no effluent released into natural water courses.	100
Kumba Iron Ore	Materials	Kumba aims to decrease its water consumption by 10% to 15% against a business-as-usual (BAU) forecasted consumption in 2020. The 2020 target is based on a 2010 BAU calculation.	100
Kumba Iron Ore	Materials	Kumba develops an annual absolute water savings target based on projected production volumes.	100
Mondi PLC	Materials	We will promote conservation, reuse and recycling practices to reduce specific contact water consumption by 10% by 2015, against a 2010 base year.	37
Mondi PLC	Materials	We will reduce our effluent load to the environment, either directly or indirectly discharged, by 10% against a 2010 base year.	90
Northam Platinum Ltd	Materials	To maintain water consumption per ounce of platinum produced at current levels.	
Northam Platinum Ltd	Materials	For 85-90% of total water usage to come from recycled water.	100

## Appendix 2: Investor signatories

**573 financial institutions with assets of US\$60 trillion were signatories to the CDP 2014 water questionnaire dated February 1st 2014**

3Sisters Sustainable Management LLC  
 Aberdeen Asset Management  
 ABRAPP - Associação Brasileira das Entidades Fechadas de Previdência Complementar  
 Achmea BV  
 ACTIAM  
 Active Earth Investment Management  
 Acuity Investment Management  
 Addenda Capital Inc.  
 Advanced Investment Partners  
 Advantage Asset Managers (Pty) Ltd  
 AEGON-INDUSTRIAL Fund Management Co., Ltd  
 AK PORTFÖY YÖNETİMİ A.Ş.  
 Alberta Investment Management Corporation (AIMCo)  
 Alberta Teachers Retirement Fund  
 Alcyone Finance  
 AllenbridgeEpic Investment Advisers  
 Alliance Trust  
 Allianz Elementar Versicherungs-AG  
 Allianz Global Investors AG  
 Allianz Group  
 Altira Group  
 AmpegaGerling Investment GmbH  
 Amundi AM  
 Antera Gestão de Recursos S.A.  
 APG Group  
 Appleseed Fund  
 Apsara Capital LLP  
 Arisaig Partners  
 Arjuna Capital  
 As You Sow  
 ASB Community Trust  
 ASM Administradora de Recursos S.A.  
 ASN Bank  
 Assicurazioni Generali Spa  
 ATI Asset Management  
 Atlantic Asset Management Pty Ltd  
 Australian Ethical Investment  
 AustralianSuper  
 Avaron Asset Management AS  
 Aviva  
 Aviva Investors  
 BAE Systems Pension Scheme  
 Baillie Gifford & Co.  
 BaitCap  
 Banco Comercial Português SA  
 Banco do Brasil Previdência  
 Banco do Brasil S/A  
 Banco Espírito Santo SA  
 Banco Nacional de Desenvolvimento Economico e Social (BNDES)  
 Banco Popular Espanol  
 Banco Sabadell  
 Banco Santander  
 Banesprev – Fundo Banespa de Seguridade Social  
 BANIF SA  
 Bank of America  
 Bank J. Safra Sarasin AG  
 Bank Vontobel  
 Bankhaus Schelhammer & Schattera Kapitalanlagegesellschaft m.b.H.  
 Bankinter  
 Banque Degroof  
 Banque Libano-Française  
 Barclays  
 Basellandschaftliche Kantonalbank  
 BASF Sociedade de Previdência Complementar  
 Baumann and Partners S.A.  
 Bayern LB  
 BayernInvest Kapitalanlagegesellschaft mbH

BBC Pension Trust Ltd  
 BBVA  
 Bedfordshire Pension Fund  
 Beetle Capital  
 Befimmo SA  
 Bentall Kennedy  
 Berenberg Bank  
 Blom Investment Bank  
 Blumenthal Foundation  
 BNP Paribas Investment Partners  
 Boston Common Asset Management, LLC  
 BP Investment Management Limited  
 Breckinridge Capital Advisors  
 British Airways Pensions  
 British Coal Staff Superannuation Scheme  
 BC Investment Management Corporation  
 Brown Advisory  
 BSW Wealth Partners  
 BT Financial Group  
 BT Investment Management  
 CAAT Pension Plan  
 Cadiz Holdings Limited  
 CAI Corporate Assets International AG  
 Caisse de dépôt et placement du Québec  
 Caisse des Dépôts  
 Caixa de Previdência dos Funcionários do Banco do Nordeste do Brasil (CAPEF)  
 Caixa Econômica Federal  
 Caixa Geral de Depósitos  
 California Public Employees' Retirement System (CalPERS)  
 California State Teachers' Retirement System (CalSTRS)  
 California State Treasurer  
 Calvert Investment Management, Inc  
 Canada Pension Plan Investment Board (CPPIB)  
 Canadian Labour Congress Staff Pension Fund  
 CAPESESP  
 Capital Innovations, LLC  
 Capricorn Investment Group  
 CareSuper  
 Caser Pensiones E.G.F.P  
 Catherine Donnelly Foundation  
 Catholic Super  
 CBRE Group, Inc.  
 Cbus Superannuation Fund  
 CCLA Investment Management Ltd  
 CDF Asset Management  
 Cedrus Asset Management  
 Celeste Funds Management  
 Central Finance Board of the Methodist Church  
 Ceres  
 Change Investment Management  
 Quilter Cheviot Asset Management  
 CTBC Financial Holding Co., Ltd  
 Christian Brothers Investment Services Inc.  
 Christian Super  
 Christopher Reynolds Foundation  
 Church Commissioners for England  
 Church of England Pensions Board  
 Cleantech Invest AG  
 ClearBridge Investments  
 Climate Change Capital Group Ltd  
 CM-CIC Asset Management  
 Colonial First State Global Asset Management Limited  
 Comgest  
 Comité syndical national de retraite Bâtirente  
 Commlnsure  
 Commonwealth Bank of Australia  
 Commonwealth Superannuation Corporation  
 Compton Foundation, Inc.  
 Concordia Versicherungs-Gesellschaft a.G.  
 Confluence Capital Management LLC  
 Connecticut Retirement Plans and Trust Funds  
 Conser Invest  
 Co-operative Asset Management  
 Co-operative Financial Services (CFS)  
 Crayna Capital, LLC  
 Credit Agricole

Daegu Bank  
 Daesung Capital Management  
 Daiwa Securities Group Inc.  
 Dalton Nicol Reid  
 Dana Investment Advisors  
 de Pury Pictet Turrettini & Cie S.A.  
 DekaBank Deutsche Girozentrale  
 Delta Lloyd Asset Management  
 Demeter Partners  
 Deutsche Bank AG  
 Development Bank of Japan Inc.  
 Candriam Investors Group  
 DIP - Danske civil- og akademiingeniørers Pensionskasse  
 DLM INVISTA ASSET MANAGEMENT S/A  
 Domini Social Investments LLC  
 Dongbu Insurance  
 Doughty Hanson & Co.  
 Earth Capital Partners LLP  
 East Capital AB  
 Ecclesiastical Investment Management  
 Ecofi Investissements - Groupe Credit Cooperatif  
 Edward W. Hazen Foundation  
 EEA Group Ltd  
 Eko  
 Elan Capital Partners  
 Element Investment Managers  
 Environment Agency Active Pension Fund  
 Environmental Investment Services Asia  
 Epworth Investment Management  
 Equilibrium Capital Group  
 equinet Bank AG  
 Erik Penser Fondkommission  
 Erste Asset Management  
 Erste Group Bank AG  
 Essex Investment Management Company, LLC  
 ESSSuper  
 Ethos Foundation  
 Etica SGR  
 Eureka Funds Management  
 Eurizon Capital SGR S.p.A.  
 Evangelical Lutheran Church in Canada Pension Plan for Clergy and Lay Workers  
 Evangelical Lutheran Foundation of Eastern Canada  
 Evangelisch-Luth. Kirche in Bayern  
 F&C Asset Management  
 FAELCE – Fundacao Coelce de Seguridade Social  
 FAPERS- Fundação Assistencial e Previdenciária da Extensão Rural do Rio Grande do Sul  
 Federal Finance  
 Fédérés Gestion d'Actifs  
 FIDURA Capital Consult GmbH  
 FIM Asset Management Ltd  
 FIM Services  
 Finance S.A.  
 Financiere de l'Echiquier  
 FIPECq - Fundação de Previdência Complementar dos Empregados e Servidores da FINEP, do IPEA, do CNPq  
 First Affirmative Financial Network  
 First Commercial Bank  
 First State Investments  
 Firstrand Limited  
 Five Oceans Asset Management  
 Florida State Board of Administration (SBA)  
 Folketrygdfondet  
 Folksam  
 Fondation de Luxembourg  
 Fondo Pensione Gruppo Intesa Sanpaolo - FAPA  
 Fonds de Réserve pour les Retraites – FRR  
 Forma Futura Invest AG  
 FRANKFURT-TRUST Investment Gesellschaft mbH  
 Friends Fiduciary Corporation  
 Fukoku Capital Management Inc  
 FUNCEF - Fundação dos Economistas Federais  
 Fundação AMPLA de Seguridade Social - Brasileiros  
 Fundação Atlântico de Seguridade Social  
 Fundação Banrisul de Seguridade Social  
 Fundação de Assistência e Previdência Social do BNDES - FAPES

Fundação Forluminas de Seguridade Social - FORLUZ	Kagiso Asset Management	Natixis SA
Fundação Itaipu BR - de Previdência e Assistência Social	Kaiser Ritter Partner Privatbank AG (Schweiz)	Natural Investments LLC
Fundação Promon de Previdência Social	KB Kookmin Bank	Nedbank Limited
Fundação Rede Ferroviária de Seguridade Social – Refer	KBC Asset Management NV	Needmor Fund
Fundação Vale do Rio Doce de Seguridade Social - VALIA	KCPS and Company	Nelson Capital Management, LLC
FUNDIÁGUA - FUNDAÇÃO DE PREVIDENCIA COMPLEMENTAR DA CAESB	KDB Asset Management Co., Ltd.	Neuberger Berman
Futuregrowth Asset Management	Kepler Cheuvreux	New Alternatives Fund Inc.
GameChange Capital LLC	KEPLER-FONDS Kapitalanlagegesellschaft m. b. H.	New Amsterdam Partners LLC
Gemway Assets	KEVA	New Forests
General Equity Group AG	KeyCorp	New Mexico State Treasurer
Generali Deutschland Holding AG	KeyCorp	New Resource Bank
Generation Investment Management	KfW Bankengruppe	New York State Common Retirement Fund (NYSCRF)
German Equity Trust AG	Killik & Co LLP	Newground Social Investment
Global Forestry Capital S.a.r.l.	Kiwi Income Property Trust	Newton Investment Management Limited
Globalbalance Bank	Kleinwort Benson Investors	NGS Super
GLS Gemeinschaftsbank eG	KLP Insurance	NH-CA Asset Management
GOOD GROWTH INSTITUT für globale Vermögensentwicklung mbH	Korea Technology Finance Corporation	Nikko Asset Management Co., Ltd.
Good Super	KPA Pension	Nipponkoa Insurance Company, Ltd
Governance for Owners	La Banque Postale Asset Management	NORD/LB Kapitalanlagegesellschaft AG
Government Employees Pension Fund ("GEPPF"), Republic of South Africa	La Financiere Responsable	Nordea Investment Management
GPT Group	Lampe Asset Management GmbH	Norfolk Pension Fund
Greater Manchester Pension Fund	LBW Asset Management Investmentgesellschaft mbH	Norges Bank Investment Management (NBIM)
Green Cay Asset Management	LD Lønmodtagernes Dyrtdisfond	North Carolina State Treasurer
Green Century Capital Management	Legal and General Investment Management	Northern Ireland Local Government Officers' Superannuation Committee (NILGOSC)
GROUPAMA EMEKLİLİK A.Ş.	Legg Mason, Inc.	Northern Trust
GROUPAMA SİGORTA A.Ş.	LGT Capital Management Ltd.	NorthStar Asset Management, Inc
Groupe Crédit Coopératif	LGT Capital Partners	Northward Capital
Groupe Investissement Responsable Inc.	Light Green Advisors, LLC	Northwest and Ethical Investments L.P. (NEI Investments)
GROUPE OFI AM	Limestone Investment Management	OceanRock Investments Inc.
Grupo Santander Brasil	Living Planet Fund Management Company S.A.	Oddo & Cie
Gruppo Monte Paschi	Lloyds Banking Group	oeco capital Lebensversicherung AG
Harbour Asset Management	Local Authority Pension Fund Forum	ÖKOWORLD
Harrington Investments, Inc	Local Government Super	OMERS Administration Corporation
Hauck & Aufhäuser Asset Management GmbH	LOGOS PORTFÓY YÖNETİMİ A.Ş.	Ontario Teachers' Pension Plan
Hazel Capital LLP	London Pensions Fund Authority	OP Fund Management Company Ltd
Healthcare of Ontario Pension Plan (HOOPP)	Lothian Pension Fund	Oppenheim & Co Limited
Helaba Invest Kapitalanlagegesellschaft mbH	LUCRF Super	Opplysningsvesenets fond (The Norwegian Church Endowment)
Henderson Global Investors	MainFirst Bank AG	OPSEU Pension Trust (OP Trust)
Hermes Fund Managers	MAMA Sustainable Incubation AG	Oregon State Treasurer
HESTA Super	MAPFRE	Orion Energy Systems
HIP Investor	Maple-Brown Abbott	Osmosis Investment Management
Holden & Partners	Marc J. Lane Investment Management, Inc.	Panahpur
HSBC Holdings plc	Maryknoll Sisters	Park Foundation
Humanis	Maryland State Treasurer	Parnassus Investments
Hyundai Marine & Fire Insurance Co., Ltd.	Matrix Group	Pax World Funds
Hyundai Securities Co., Ltd.	McLean Budden	Pensioenfonds Vervoer
IBK Securities	Meeschaert Gestion Privée	Pension Protection Fund
IDBI Bank Ltd	Merck Family Fund	Pensionsmyndigheten
Illinois State Board of Investment	Mercy Investment Services, Inc.	People's Choice Credit Union
Ilmarinen Mutual Pension Insurance Company	Mergence Africa Investments (Pty) Limited	Perpetual Investments
Impax Asset Management Group plc	MetallRente GmbH	PETROS - Fundação Petrobras de Seguridade Social
Independent Planning Group	Metzler Investment GmbH	PFA Pension
Industrial Bank of Korea	Midas International Asset Management	PGGM
Industrial Development Corporation	Miller/Howard Investments	Phillips, Hager & North Investment Management Ltd.
Inflection Point Capital Management	Mirae Asset Global Investments Co. Ltd.	PhiTrust Active Investors
ING Group	Mirae Asset Securities	Pictet Asset Management SA
Insight Investment Management (Global) Ltd	Missionary Oblates of Mary Immaculate	Pinstripe Management GmbH
Instituto Infraero de Seguridade Social - INFRAPREV	Mistra, Foundation for Strategic Environmental Research	Pioneer Investments
Instituto Sebrae De Seguridade Social - SEBRAEPREV	Mitsubishi UFJ Financial Group, Inc.	Piper Hill Partners, LLC
Integre Wealth Management of Raymond James	Mitsui Sumitomo Insurance Co.,Ltd	PKA
Interfaith Center on Corporate Responsibility (ICCR)	Mizuho Financial Group, Inc.	Pluris Sustainable Investments SA
IntReal KAG	MN	PNC Financial Services Group, Inc.
Investec plc	Momentum Manager of Managers (Pty) Ltd	Pohjola Asset Management Ltd
Investing for Good	Monega Kapitalanlagegesellschaft mbH	Portfólio 21 Investments
Investor Environmental Health Network	Mongeral Aegon Seguros e Previdência S.A.	PREVHAB PREVIDÊNCIA COMPLEMENTAR
Irish Life Investment Managers	Morgan Stanley	PREVI Caixa de Previdência dos Funcionários do Banco do Brasil
Jessie Smith Noyes Foundation	MTAA Superannuation Fund	PREVIG Sociedade de Previdência Complementar
JMEPS Trustees Limited	Mutual Insurance Company Pension-Fennia	Progressive Asset Management, Inc.
JPMorgan Chase & Co.	Natcan Investment Management	Provinzial Rheinland Holding
Jubitz Family Foundation	Nathan Cummings Foundation, The	Prudential Investment Management
Jupiter Asset Management	National Australia Bank	Psagot Investment House Ltd
	National Bank of Canada	PSP Investments
	National Grid Electricity Group of the Electricity Supply Pension Scheme	
	National Grid UK Pension Scheme	
	National Pensions Reserve Fund of Ireland	
	National Union of Public and General Employees (NUPGE)	
	Nativus Sustainable Investments	

## Appendix 2: Investor signatories

Q Capital Partners Co. Ltd	Sustainable Insight Capital Management	White Owl Capital AG
QBE Insurance Group	Svenska Kyrkan, Church of Sweden	Wisconsin, Iowa, & Minnesota Coalition for Responsible Investment
Quotient Investors LLC	Svenska Kyrkans Pensionskassa	Woori Bank
Rabobank	Swedbank	York University
Raiffeisen Fund Management Hungary Ltd.	Swift Foundation	Youville Provident Fund Inc.
Raiffeisen Kapitalanlage-Gesellschaft m.b.H.	Swisscanto Holding AG	Zegora Investment Management
Railpen Investments	Sycomore Asset Management	Zevin Asset Management
Rathbone Greenbank Investments	Syntrus Achmea Asset Management	Zurich Cantonal Bank
RCM (Allianz Global Investors)	T.SINA KALKINMA BANKASI A. .	
Real Grandeza Fundação de Previdência e Assistência Social	TD Asset Management (TD Asset Management Inc. and TDAM USA Inc.)	
REI Super	Telluride Association	
Representative Body of the Church in Wales	Telstra Super	
River Twice Capital Advisors, LLC	Terra Global Capital, LLC	
Royal London Asset Management	TerraVerde Capital Management LLC	
Robeco	TfL Pension Fund	
RobecoSAM AG	The Brainerd Foundation	
Robert & Patricia Switzer Foundation	The Bullitt Foundation	
Rockefeller Asset Management	The Central Church Fund of Finland	
Rose Foundation for Communities and the Environment	The Children's Investment Fund Foundation	
Rothschild & Cie Gestion Group	The Clean Yield Group	
Royal Bank of Canada	The Council of Lutheran Churches	
Royal Bank of Scotland Group	The Daly Foundation	
RREEF Investment GmbH	The Environmental Investment Partnership LLP	
Russell Investments	The Joseph Rowntree Charitable Trust	
Sampension KP Livsforsikring A/S	The Korea Teachers Pension	
Samsung Fire & Marine Insurance	The New School	
Samsung Securities	The Pension Plan For Employees of the Public Service Alliance of Canada	
Sanlam	The Pinch Group	
Santa Fé Portfolios Ltda	The Russell Family Foundation	
Santam Ltd	The Sandy River Charitable Foundation	
Sarasin & Partners	The Sisters of St. Ann	
SAS Trustee Corporation	The Sustainability Group	
Schroders	The United Church of Canada - General Council	
Scottish Widows Investment Partnership	The University of Edinburgh Endowment Fund	
SEB Asset Management AG	The Wellcome Trust	
Seligson & Co Fund Management Plc	Threadneedle Asset Management	
Sentinel Funds	Tobam	
SERPROS - Fundo Multipatrocinado	Tokio Marine & Nichido Fire Insurance Co., Ltd.	
Service Employees International Union Benefit Funds	Toronto Atmospheric Fund	
Servite Friars	Trillium Asset Management, LLC	
Seventh Swedish National Pension Fund (AP7)	Triodos Bank	
SHARE - Shareholder Association for Research & Education	Tri-State Coalition for Responsible Investment	
Shinhan Bank	Trusteam Finance	
Shinhan BNP Paribas Investment Trust Management Co., Ltd	Turner Investments	
Shinkin Asset Management Co., Ltd	UBI Banca	
Siemens Kapitalanlagegesellschaft mbH	Union Asset Management Holding AG	
Signet Capital Management Ltd	Union Investment Privatfonds GmbH	
Sisters of St Francis of Philadelphia	Unionen	
Sisters of St. Dominic	UNISON staff pension scheme	
Skandinaviska Enskilda Banken AB (SEB AB)	UniSuper	
Smith Pierce, LLC	Unitarian Universalist Association	
Social(k)	Unity College	
Società reale mutua di assicurazioni	Universities Superannuation Scheme (USS)	
Socrates Fund Management	Vancity Group of Companies	
Solaris Investment Management	VCH Vermögensverwaltung AG	
Sompo Japan Nipponkoa Holdings, Inc	Veris Wealth Partners	
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Sopher Investment Management	Vexiom Capital, L.P.	
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SouthPeak Investment Management	Victorian Funds Management Corporation	
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Sprucegrove Investment Management Ltd	Voigt & Collegen	
Standard Chartered	Waikato Community Trust	
Standard Chartered Korea Limited	Walden Asset Management, a division of Boston Trust & Investment Management Company	
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Triple Green products are produced from sustainable resources (waste sugar cane fibre) and are recyclable and biodegradable.

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For further information on how you may become involved in the NBI's key initiatives, please visit our website ([www.nbi.org.za](http://www.nbi.org.za)) or contact Steve Nicholls (SteveN@nbi.org.za)

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