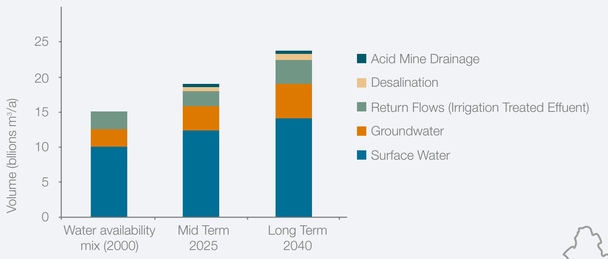
WATER IS A RISING CHALLENGE FOR SOUTH AFRICAN COMPANIES

CDP DISCLOSURE INSIGHT ACTION | NBI National Business Initiative

South Africa's water demand continues to rise amidst water shortages, capacity constraints and infrastructure challenges

Water demand in SA is expected to rise considerably by 2040*

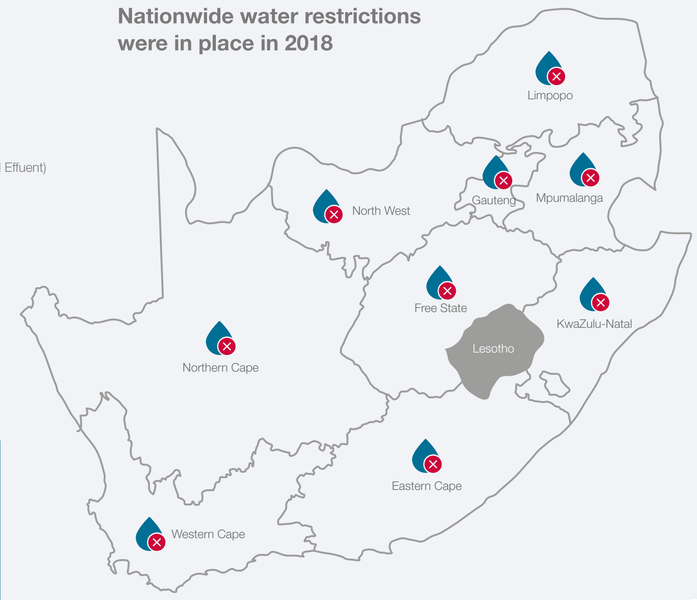


Planned shifts in water mix and total volume increases, 2000 to 2040

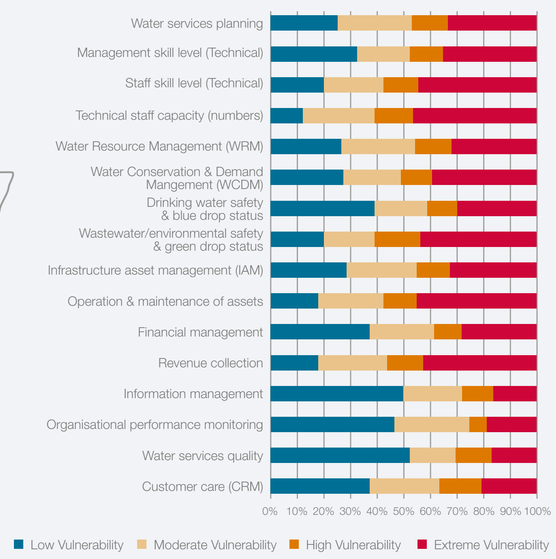
National government predicts a 17% water deficit by 2030*

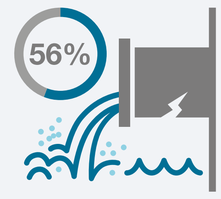
If demand continues to grow at current levels, the deficit between water supply and demand could be between 2.7 and 3.8 billion m3 per annum by 2030.

Nationwide water restrictions were in place in 2018

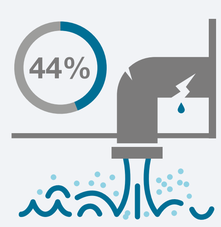


Institutional vulnerability of municipalities exacerbates water shortages**





of South Africa's wastewater treatment works are dysfunctional and degraded and in need of urgent refurbishment

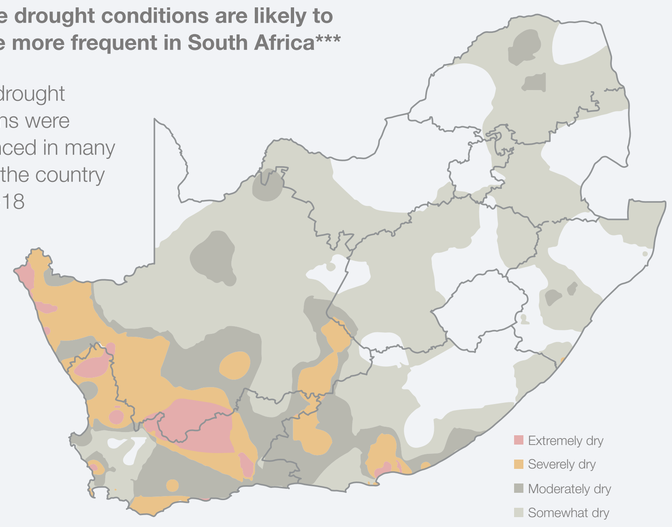


of water treatment works are in a poor or critical condition and in need of urgent rehabilitation

CLIMATE CHANGE IS LIKELY TO MAKE DROUGHT CONDITIONS MORE COMMON, WHILE THE ECOLOGICAL INFRASTRUCTURE UNDERPINNING OUR WATER SECURITY IS UNDER THREAT

Extreme drought conditions are likely to become more frequent in South Africa***

Severe drought conditions were experienced in many parts of the country in 2017-18



There has been a significant degradation of South Africa's rivers and wetlands in the past two decades

Between 1999 and 2011:

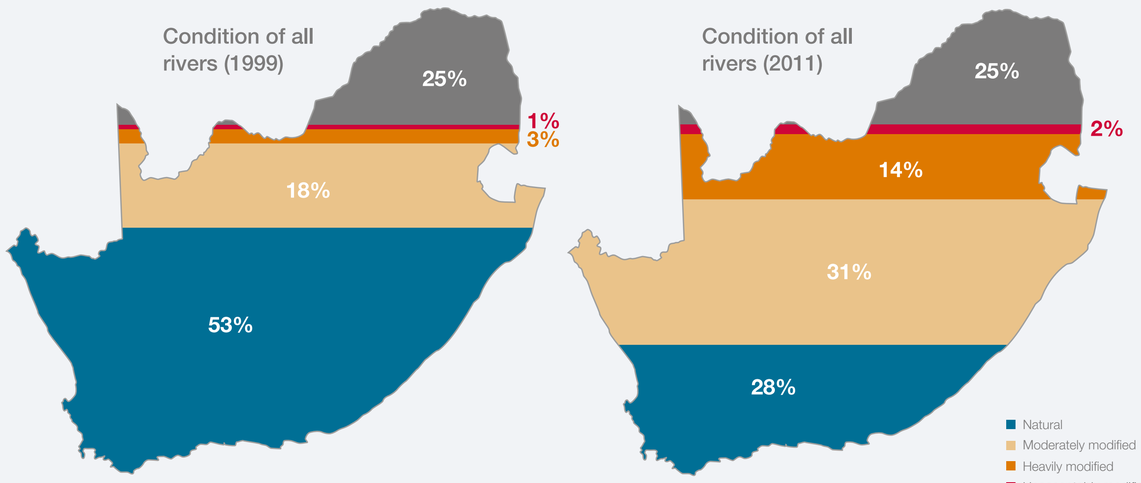
The extent of the main rivers in South Africa with a poor ecological condition increased by 500%

The extent of tributaries with a poor ecological condition increased by 229%

An estimated 50% of wetlands have been lost

It is likely that this situation has deteriorated further in many parts of the country since 2011.

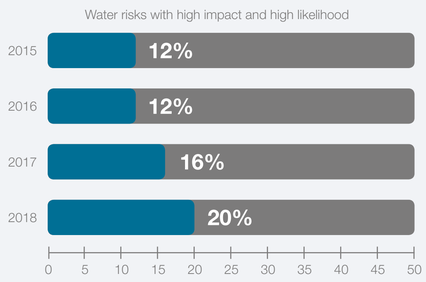
Change in aggregated ecological conditions category for all rivers in South Africa 1999 - 2011****

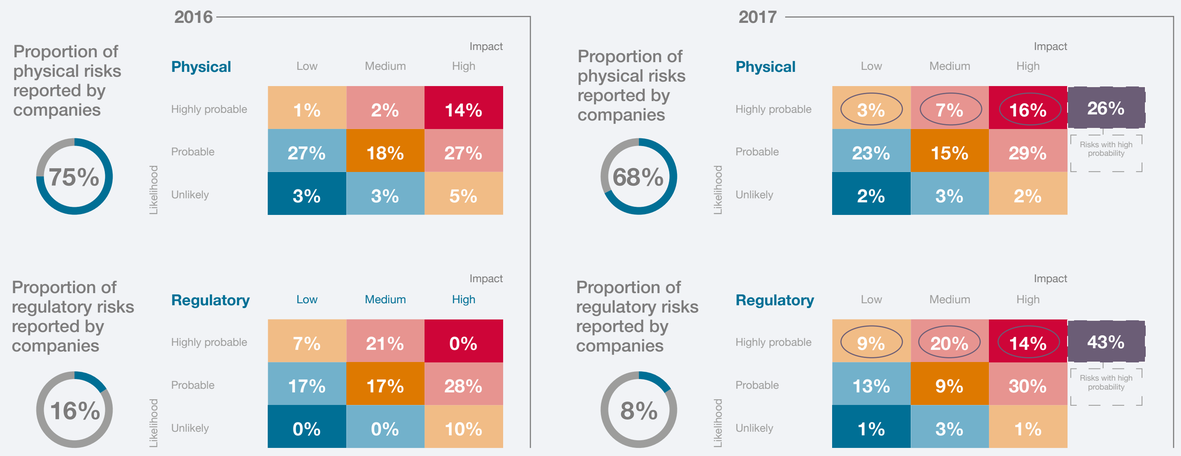


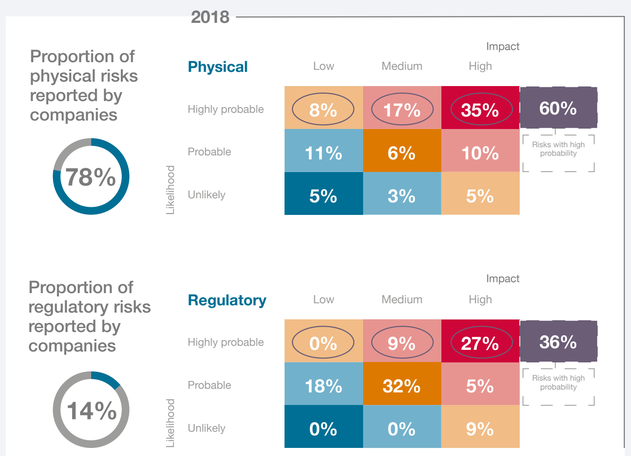
* Modification refers to changes of natural habitats and biota and varying changes in ecosystems functions

COMPANIES REPORT INCREASING WATER RISKS AND FINANCIAL EXPOSURE IN SOUTH AFRICA

Water risks with high impact and high likelihood are more frequently identified than in previous years







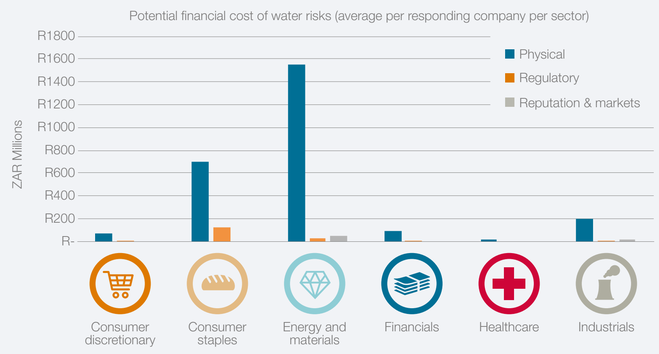
The financial value of water risk is significant

R35.5bn The total financial value at risk in South Africa

R42bn The total financial value at risk globally

Companies have incurred costs of R9bn in response to identified risks of R42bn

The average financial value of water risk per company is high, with a strong focus on direct operations



	2017	2018
of companies identify water risks in direct operations	93%	93%
of companies identify water risks in their value chain	58%	51%

In 2018, the primary risk impacts related to disruptions in production and higher operating costs

30%	Reduction or disruption in production
11%	Increased operating costs
8%	Fines, penalties or enforcement orders
5%	Changing revenue mix and sources
4%	Closure of operations
4%	Reduced revenues from lower sales/output
4%	Supply chain disruption
4%	Disruption to sales
4%	Disruption to sales due to value chain disruption

Denotes % of company reported risk impacts

THERE IS A LOWER NUMBER OF REPORTED DETRIMENTAL IMPACTS IN 2018, BUT A SIGNIFICANTLY HIGHER COST OF IMPACTS THAN IN PREVIOUS YEARS

The financial cost of detrimental impacts experienced in 2018 is high

2018: Global

The financial costs of detrimental impacts globally

R3.2bn

379% higher than in 2017

2018: South Africa

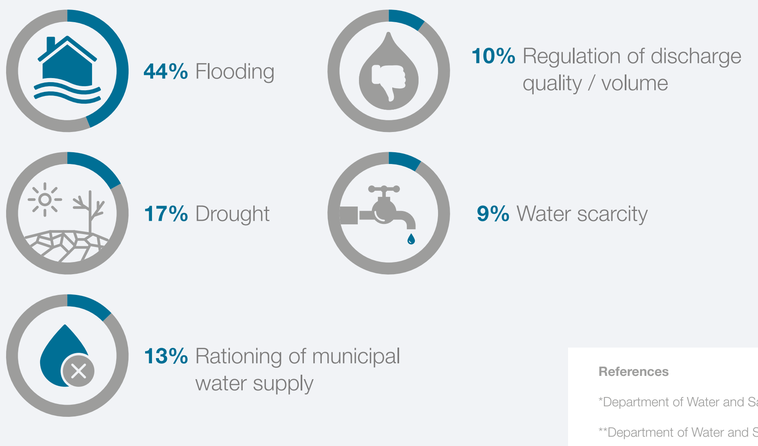
The financial costs of detrimental impacts in South Africa

R1.8bn

178% higher than in 2017

Detrimental impacts reported in South Africa in 2018

% of reported impacts



South Africa is facing a water crisis caused by insufficient water infrastructure maintenance and investment, recurrent droughts driven by climatic variation, inequities in access to water and sanitation, deteriorating water quality, and a lack of skilled water engineers. This crisis is already having significant impacts on economic growth and on the well-being of everyone in South Africa.

– National Water and Sanitation Master Plan (2018)

References

*Department of Water and Sanitation (DWS). 2018. National Water and Sanitation Master Plan (NW&SMP). Pretoria, South Africa.

**Department of Water and Sanitation (DWS). 2015a. Municipal Strategic Self Assessment (MuSSA). Pretoria, South Africa.

***South African Weather Service (SAWS) 2019. Standardized Precipitation Index (SPI) January 2017 to December 2018

****Nel, J.L & Driver, A. 2015. National River Ecosystem Accounts for South Africa.