

The state of play in corporate water stewardship

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To catalyse action to improve water security.

Vision, CDP's water program



Water insecurity – the case for action

▼ The **UN** predicts a **40% global shortfall** in water supply by 2030;

▼ They also report excessive loads of nitrogen and phosphate, from intensive agriculture, industrial production and mining amongst other things, are **degrading the quality of the water we have left**; and

▼ **NASA** reports groundwater is being depleted to the point where **regional water availability is threatened**.

Top 10 risks in terms of Impact



- 1 Failure of climate-change mitigation and adaptation
- 2 Weapons of mass destruction
- 3 Water crises
- 4 Large-scale involuntary migration
- 5 Energy price shock
- 6 Biodiversity loss and ecosystem collapse
- 7 Fiscal crises
- 8 Spread of infectious diseases
- 9 Asset bubble
- 10 Profound social instability


Water insecurity - the case for action

Demand for water is expected to increase in all sectors of production (WWAP, 2012):

▼ **BP** projects a **36% increase** in global energy consumption by 2030;

▼ The **IEA** expects water consumption in power generation to **rise by 85%** by 2035; and

▼ The **UN** predicts a **70% increase** in food demand by 2050.



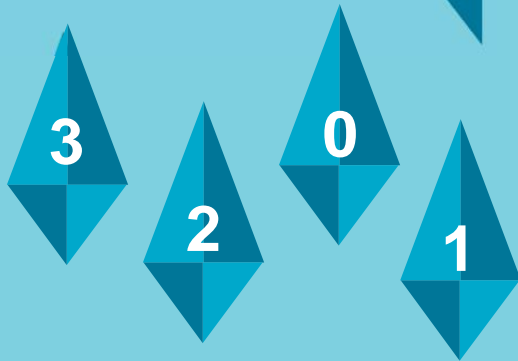
Investor attitudes have changed over the last five years, as there is increasing recognition that there are environmental limits to economic growth. CDP data helps us to analyse companies on the sector level comparing performance against their peers, understanding how companies are addressing risks and also looking at opportunities.

- Schroders (US\$ 447 billion)



Water is a business issue now

**More than 3201
substantive water risks
were reported in 2015**



A stable supply of good quality fresh water can no longer be guaranteed in many regions. CDP's 2015 Global water report found:

- ▼ Two thirds of respondents report exposure to substantive business risks from water;
- ▼ 44% anticipate these water risks to materialise in the next three years; and
- ▼ More than a quarter (27%) were negatively impacted in the reporting period with financial impacts totalling more than US\$2.5 billion.

Worsening water security is stranding assets



Barrick Gold suspends construction on its Pascua-Lama mine project after investing US\$8.5 billion due to over concerns about local groundwater pollution and stringent permitting conditions.

Historically low groundwater in South East Sweden, March 2016

- ▼ Groundwater levels in south east Sweden have been falling for the last five years
- ▼ March 2016: groundwater levels all-time low measured in Böda (Öland)
(measurements began 1968)
- ▼ Levels are usually lowest in these regions in the period August - September
- ▼ Trucks delivering water to island of Öland from mainland
- ▼ Island of Gotland has a watering ban from April 1st

Source: SGU, Sveriges Radio

Effects of climate change on Swedish water resources

Groundwater

- ▼ South-East Sweden can have greater problems with low groundwater levels in the future.
- ▼ The rest of Sweden is likely to have higher groundwater levels in the future.

Flooding

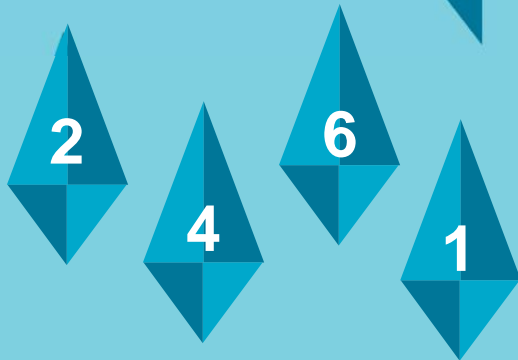
- ▼ Floods due to extreme water flows expected to become more common in the South, less common in the North.
- ▼ 18 areas of Sweden have been identified as having significant risk of flooding.

Source: SGU



It's not all risk

More than 2461
business opportunities
identified through our
water program in 2015



Strategic water stewardship efforts reduces risk, enhances strategic preparedness, improves investor appeal and makes businesses **more resilient**:

- ▼ 73% of responding companies report that water offers operational, strategic, or market opportunities
 - ▼ Increased brand value
 - ▼ Cost savings
 - ▼ Supply chain resilience
- ▼ However, only 23% have a plan to capitalize on operational, strategic or market opportunities.

Opportunity through innovation



Unilever have developed an in-home water purifier, Pureit, which provides drinking water that is 'as safe as boiled'™ without the need for gas, electricity or a pressurised water supply.

Opportunity through innovation

Associated British Foods plc

Associated British Foods in partnership with suppliers, are working to reduce the environmental impact of textile production. Supplier training programs on how to reduce water, chemical and energy use, and ensuring wastewater is treated properly have been implemented.

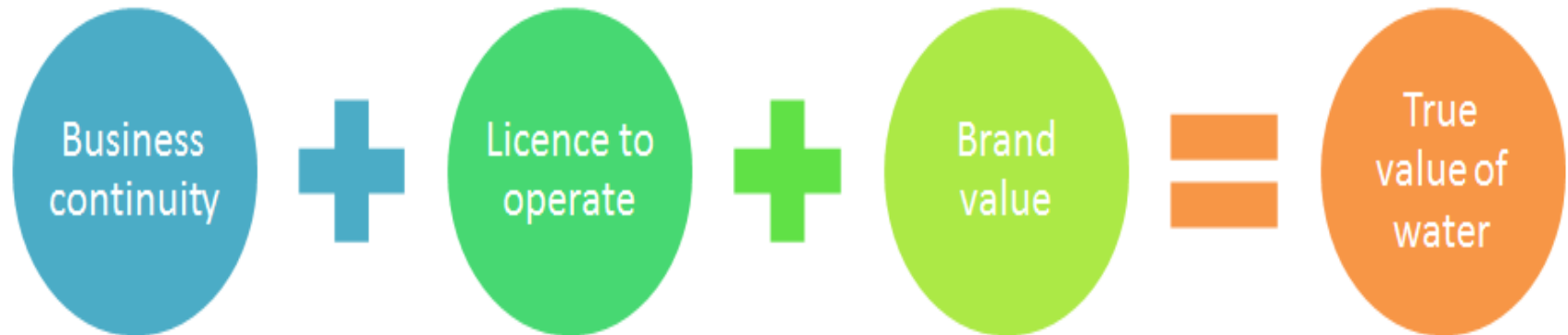
The Diageo logo is displayed in a white square. It consists of the word "DIAGEO" in a bold, dark red, sans-serif typeface.

UK drinks company Diageo Plc has reduced the volume of its water withdrawals by nearly 1 million cubic meters this reporting year and estimates the cost savings associated with this reduction to be approximately US\$3.2 million.

Opportunities for Nordic companies

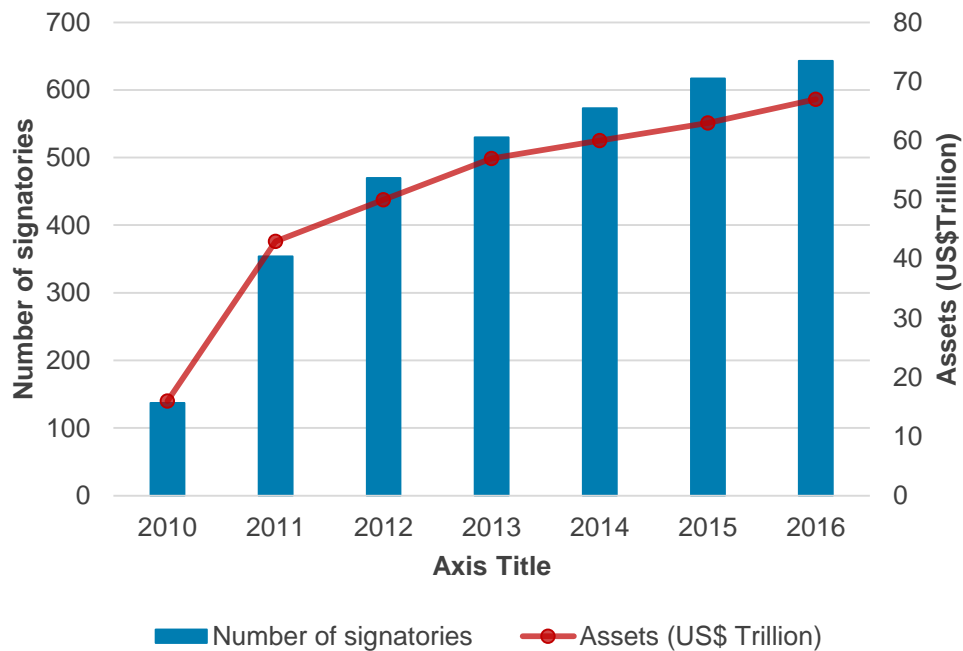
- ▼ Board level oversight of water issues: H&M, Metsa, Norsk Hydro, Assa Abloy, SCA
- ▼ Companies reporting opportunities include: H&M, Metsa Board, UPM-Kymmene Corporation, Nokian Tyres, Holmen, Assa Abloy, SCA
- ▼ Opportunities include: **Cost savings, climate change adaptation, competitive advantage, increased brand value, sales of new product/services and water efficiency**
- ▼ Trade off's between energy use and water saving

Realizing the true value of water



Investors have woken up to water risk

CDP Signatories & Assets: 2010 - 2016




318%

increase in investor signatories since 2010

Investor 2016

643 investor signatories


US\$67 trillion in assets



ICCR uses CDP's water data to understand companies' water-related risk exposure and water stewardship opportunities.

Interfaith Centre for Corporate Responsibility





Companies that respond to the questionnaire signal to our investor coalition that they are strategically measuring and addressing water related risks.


Interfaith Centre for Corporate Responsibility



The value of disclosure

Water Stewardship and Disclosure will:

- ▼ Require companies to ***enhance their understanding*** of the issues, risks and opportunities in their own businesses;
- ▼ Support efforts to ***develop standard measures*** and performance benchmarks;
- ▼ Provide companies, investors and other data users with ***better information***;
- ▼ ***Encourage and support meaningful action*** and dialogue; and
- ▼ ***Enhance business resilience and water security.***



Using CDP's water questionnaire as a framework, we have benchmarked our strategies for addressing water-related impacts against sector peers, supporting us to further advance water stewardship in our direct operations and wider supply chain.

Mars Inc.



Disclosure drives positive business action on water

According to CDP's 2015 Global water report, companies engaging with CDP for the past 5 years:

- ▼ Are now **more able to identify risks**, 60% in 2015 up from 55% in 2011;
- ▼ 64% report that **oversight of water** policy, strategy and planning now rests **at board level**, up from 57% in 2011; and
- ▼ 45% now **request their suppliers to report on water** use, risks and management – up from just 25% in 2011.

Accelerating action through scoring

In 2015, CDP scored all water responses to:

- ▼ Provide objective feedback to respondents;
- ▼ Provide benchmarking metrics and indicators to investors;
- ▼ Catalyse better corporate water stewardship; and
- ▼ Enhance data quality and reliability.



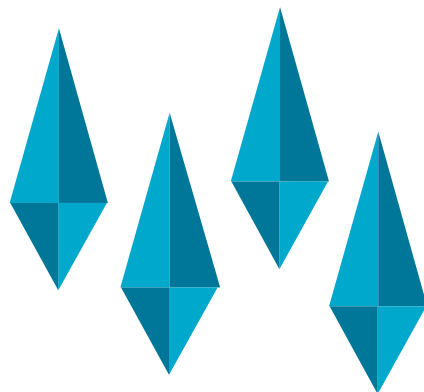
Governments & non-state actors are committed



Ensure availability and sustainable management of water and sanitation for all

▼ **6.3** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

▼ **6.4** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity



Water and forests



Forests and water - key ecosystem services

- ▼ Tropical forests only cover 7% of land area, but account for **half of terrestrial biodiversity**;
- ▼ Filtration & water storage provided by forests supply **75% of accessible freshwater**; and
- ▼ At least **one third of the world's largest cities** rely on protected forest areas for water supplies.

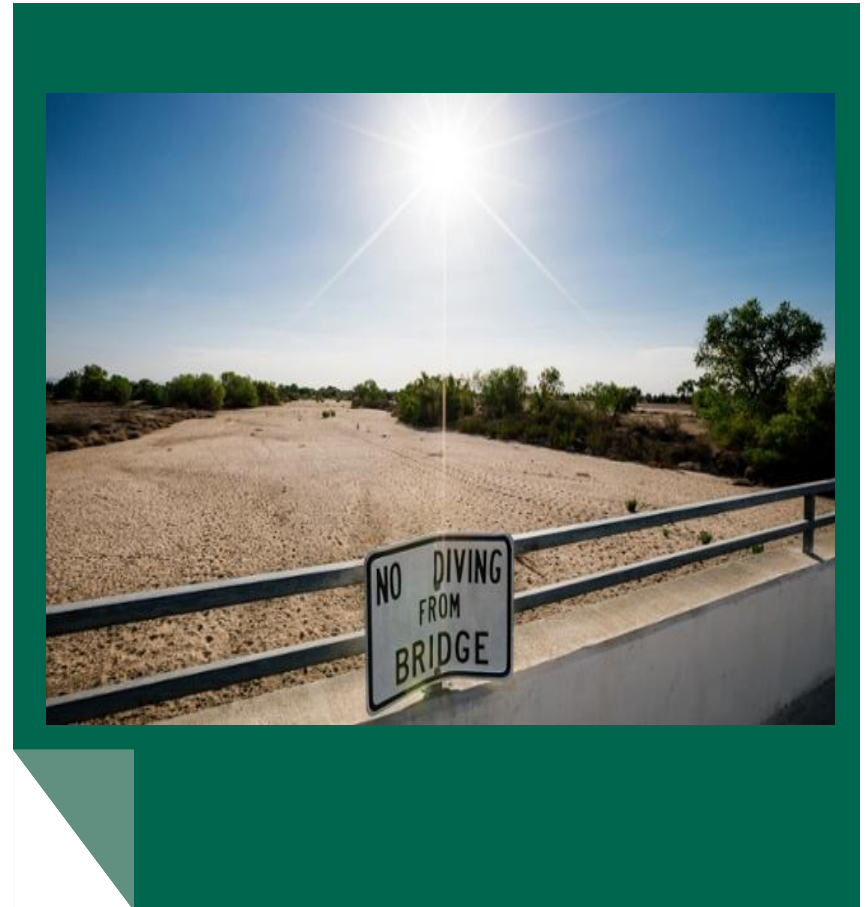


Cattle ranching in South America incurs a natural capital **cost of \$353.8bn a year** for only **\$16.6bn in revenue**.

Trucost estimate

Amazon deforestation linked to droughts for western U.S.

- Amazon deforestation does not only impact the Amazon region but impacts atmospheric circulation.
- An Amazon stripped bare could mean 20% less rain for the coastal Northwest and a 50% reduction in the Sierra Nevada snowpack, a crucial source of water for cities and farms in California.



California

▼ Unprecedented drought has led to an estimated economic cost of US\$2.2 billion in 2014, with a loss of over 17k seasonal and part-time jobs.

▼ **Marriott International** has experienced higher water costs caused by drought conditions in their hotels in Ca, Az and Nev; in some places water costs rose over 6.5% compared to the previous year.



▼ French utilities giant **ENGIE** reports a reduction in revenue resulting from the ongoing drought in Brazil.

▼ In 2014, the financial impact of the unfavourable hydrology was reported to cost the organization approximately **US\$223 million**, almost **3% operating income** in 2014.

▼ **Colgate Palmolive** report higher operating costs due to extended periods of drought in 2014 when key reservoirs almost completely dried up.

▼ Water spend would increase by 45% if trucked water was used as a water supply.

Colgate has invested **US\$3.4million** in new capital projects that aim to help reduce financial costs and operating difficulties if the drought continues.

Impacts being felt now in Europe

SCA

- ▼ **Driver:** Re-regulation of discharge quality/volumes leading to higher compliance costs; EU BREF legislation
- ▼ **Potential impact identified:** Loss of license to operate; Rhine France
- ▼ **Action taken:** Installed a new biological cleaning plant; the impact on SCA is limited since they took action ahead of the coming legislation

Risks predicted to occur in Sweden

Assa Abloy

- ▼ Driver: Rationing of municipal supply in Sweden
- ▼ Potential Impact: Higher operating costs (>6yrs), negative impact to facilities in Sweden that are dependent on water for plating, low financial impact
- ▼ Likelihood: Probable, >6 yrs
- ▼ Strategy: Establish site-specific targets, increased investment in new technology, promote best practice and awareness

E.ON

- ▼ Driver: Increased water scarcity
- ▼ Potential Impact: Closure of operations, medium – high financial impact
- ▼ Likelihood: Probable, 1-3 yrs
- ▼ Strategy: Improving and fostering water risk assessment management at site level, improve network management, operational & infrastructure improvements

Supply Chain risks for Nordic companies

H&M

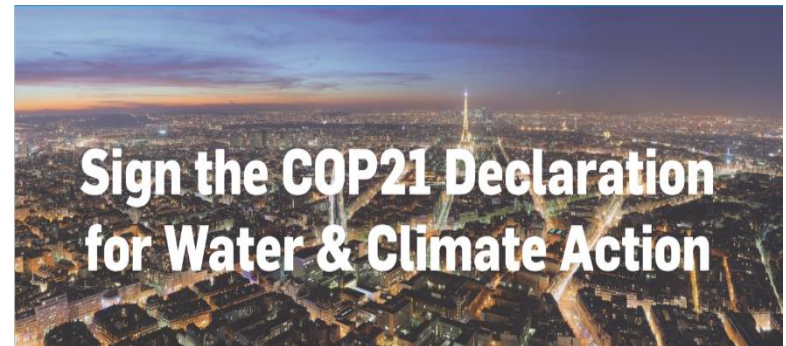
- ▼ Driver: Increased water scarcity
- ▼ Potential Impact: Supply chain disruption in Bangladesh; caused by water pollution to uncontrolled discharges by industrial and agricultural users
- ▼ Likelihood: Probable, 4-6 yrs
- ▼ Strategy: Engagement with suppliers, NGOs, communities and policy makers

COP 21: what does it mean?



Corporate commitments on water security

▼ Commit to measure and minimize water risks and impacts by working with CDP, the UN Global Compact, WBCSD and other collaborative initiatives




BUSINESS ALLIANCE FOR WATER & CLIMATE CHANGE



With support from:





Companies that respond to CDP's water questionnaire signal to our investor coalition that they are strategically measuring and addressing water related risks.

Interfaith Centre for Corporate Responsibility



Keep up with best practice

