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Water, the new carbon?





In terms of potential impact, water crises ranks as one of the top 3 risks to global growth"

World Economic Forum (WEF)

Global Risk Report 2016



'Water crises' is the most likely risk in S &SE Asia in 2016 according to WEF





BUT Water is not carbon



Water needs to be addressed in an appropriate manner

Variable in time and location

Understanding operational and strategic risk around water is a different matter than for natural resources such as minerals or forests, which tend to be much more static

Finite

Organisations must make the effort to understand the differing pricing mechanisms and levels of governance in charge of managing water systems in the locations where they operate

Nonsubstitutable Effective water management requires the continual reconciliation of tradeoffs between private interests and collective well-being

Local

Water strategies cannot be based on carbon measures, off-sets and lifecycle assessments because water in one basin is not equivalent to water in another

Key takeaway: Business efficiency and technology thinking alone cannot prepare companies for the future

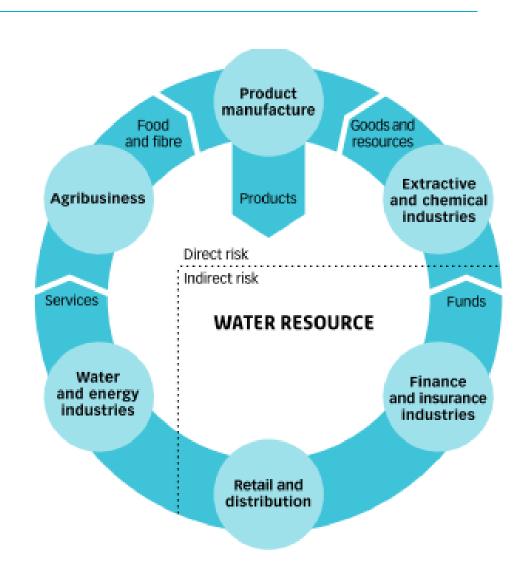


How can water impact businesses?



Many sectors are exposed to water risk

- Agri-business / Forestry
- Extractive industries
- Power generation
- Water industry
- Manufacturing (ie Consumer goods)
- Tourism and leisure
- Finance & insurance
- Retail





Water risk does not only impact heavy direct users of water



Run a medium sized gold mining operation for a day





1,364 MEGALITRES

Run a 500 MW power plant for a day

27% of respondents to the 2015 CDP Water questionnaire 'have already seen water risk manifest itself as a detrimental impact to their business in the last reporting year'



Location-related factors can put a company at risk.. "Clean fish in a dirty or dry pond"

COMPANY RELATED RISK

Linked to facility's performance

Water quantity and quality issues

related to the performance of the

company and its supply chain

PHYSICAL RISK Water quantity (scarcity, flooding, and droughts) and quality (pollution) within the river basin and the impacts this might have on society and the environment

BASIN RELATED RISK Linked to location of facility

Perceptions of water use, pollution and behaviour that have negative impacts on the company brand and influence purchasing decisions. Public perceptions can emerge rapidly if local aquatic systems and community access to water are affected.

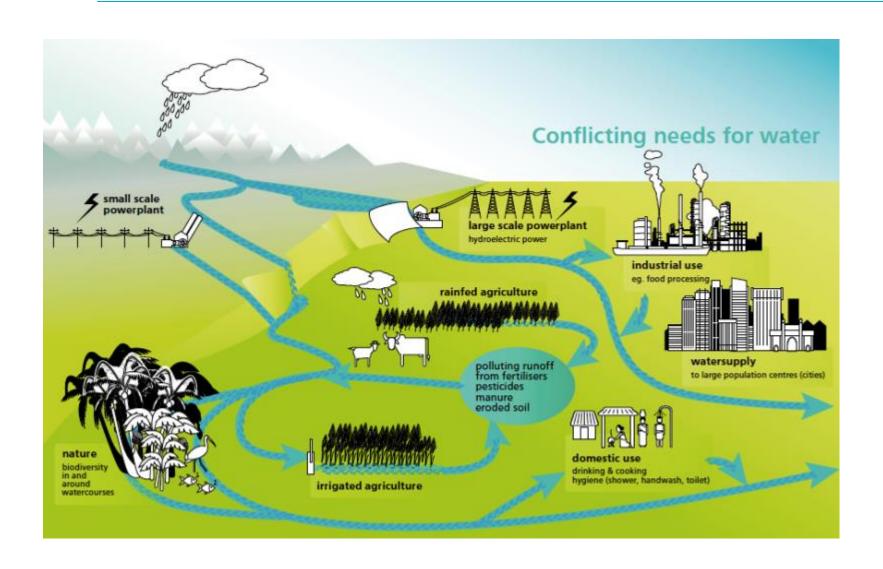
REGULATORY RISK Strength and enforcement of water regulations and the consequences of restrictions by public institutions; either felt through direct regulatory action or from neglect, blockages, or failure

When the actions of the company are poorly executed, understood or communicated with local stakeholders and where perceptions and brand suffer as a consequence

REPUTATION RISK The potential for changes in pricing, supply, rights, standards, and license to operate, for a particular company or sector—or the lack of regulations.



Different users within the same basin can create conflicting needs





Water risks can also come from your supply chain (indirect risks)

Companies can be exposed to indirect water risks through their sourcing from sectors which are themselves exposed to high water risks

- Sourcing of soft commodities (cotton, sugarcane etc.) e.g. high water dependency for the food, beverage and apparel companies take place in their supply chain
- Sourcing of hard commodities (oil, metals etc.)
 e.g. Vale and BHP facing billions of dollars in fines for Brazil
 dam disaster

Indirect water risks can impact companies through

- Supply disruption
- Material price spikes
- Reputational damage
- Fines and costs through poor oversight



Water risks come in 3 forms







Physical

Reputational

Regulatory

Financial Risk



How can Physical Risks impact businesses?

Physical Risks include

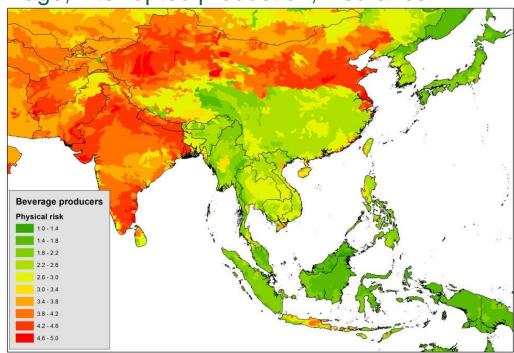
• Water scarcity: a manufacturing or power generation plant doesn't have enough water to operate; farmers cannot grow crops therefore food companies' supply chains are disrupted or companies must look for other, probably more expensive, suppliers; utilization rates are low

• **Pollution**: increased water treatment costs or loss of access to the right quality of water for operations

• Flooding: may cause property damage, interrupted production, insurance

premiums

Physical Risks in Asia:



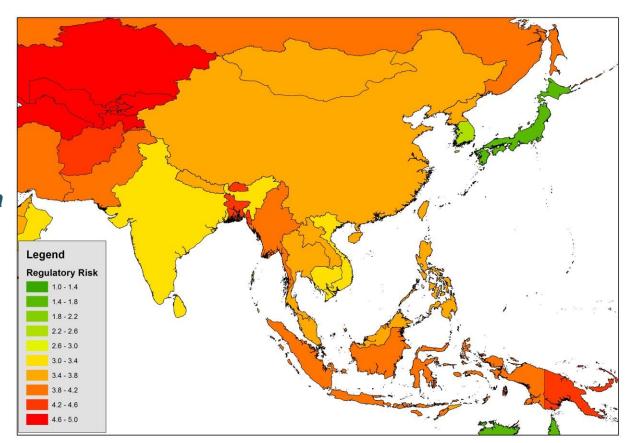


Regulatory Risks impacts

Regulatory Risks include

- Unforeseen changes in legislation which the business is not adapted to: i.e. changes in water access rights, water rationing, increased price of water
- Fines or imposed factory closure because a company is not respecting regulations on water management or water pollution

Regulatory Risks in Asia



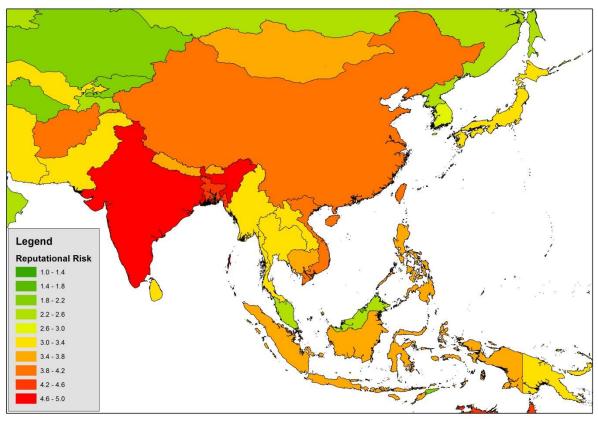


How can Reputational Risks impact businesses?

Reputational Risks include

- Impacts from negative campaigns from NGOs
- Impacts from conflicts with local communities

Reputational Risks in Asia





How can water risk impact a company's value?

Income Statement

Drop in revenues: disruption in operations, consumer boycotts

Increased costs: increased withdrawal difficulty, higher energy costs,

increased treatment costs, fines, lawsuits

Balance sheet

Impaired/stranded assets: loss of access rights, water infrastructure,

goodwill

Liabilities/provisions: fines, water taxes payable, loans and bonds

(inability to service)

According to CDP: "A 40% global shortfall in water supply is expected by 2030. Business as usual water management will put at risk US\$63 trillion or 1.5 times today's economy"



What is water stewardship and how are companies taking steps towards it?



The concept of water stewardship

No single government, sector of society or private enterprise can ensure a water secure future

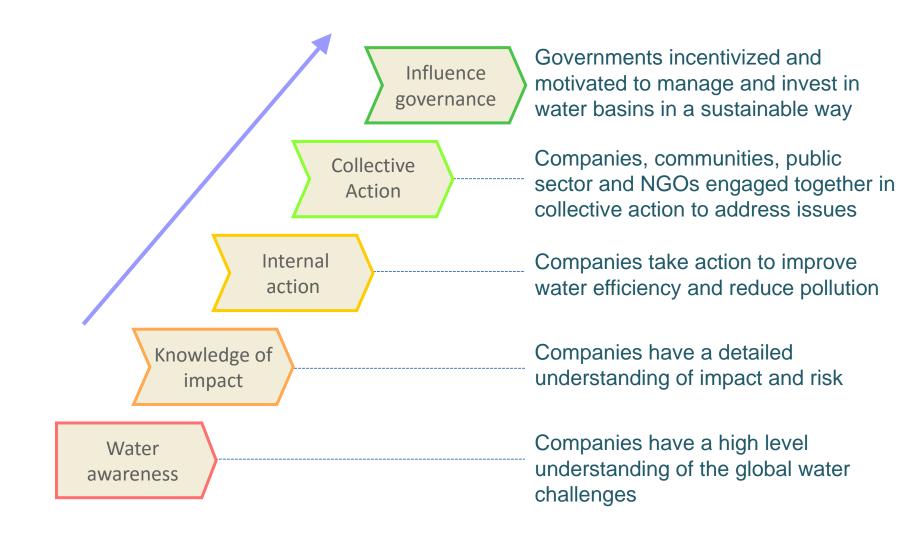
Coordinated collective action is needed if we are going to find new, sustainable ways to protect the water cycle in a rapidly changing world

We define Water Stewardship as:

- a progression of increased improvement of water use and a reduction in the water-related impacts of internal and value chain operations
- more importantly, it is a commitment to the sustainable management of shared water resources in the public interest through collective action with other businesses, governments, NGOs and communities



WWF's Water Stewardship Steps for Co's





Case study 1: H&M

- 1) Water awareness: created in depth internal training and communication materials on water risks. Physical, regulatory and reputational water risks included in the company's risk management strategy.
- 2) Internal action: Signatory of the CEO Water Mandate, through which it commits to improve both its own and its suppliers' water efficiency (target 100% to achieve BSR standard), improve wastewater quality and report transparently on its progress.
- 3) Collective action: Working with WWF on supporting stronger water governance in Bangladesh and China, through collaboration with other organizations and analysis of governance challenges





Case Study 1: collective action involving H&M and WWF in China

- Started with WWF the first multi-stakeholder water stewardship platform in Taihu, China. First workshop held in August 2015
- Aim is that all factories in the area will improve internal practices, share resources and expertise on water management and engage in collective action with local factories, communities and NGOs
- Gathers voices from IP committees, local dyeing associations, dyeing mill representatives, academics and NGOs, around implementation of water stewardship in the region
- Started with WWF an NGO network, also participating in the platform, in the Taihu basin to connect policy-makers and local communities on public participation and collective actions around the basin level





Case Study 2: Mekong





Case Study 2 Mekong

- Viet Nam: agriculture in delta at risk due to land subsidence and salt water intrusion
- Cambodia: livelihoods impacted through hydropower and pollution from urban sectors
- Thailand: dependent on energy, agriculture, food and beverage manufacturing and sand mining
- Laos: hydropower and construction

Call to action

- Governments: market based policy instruments
- Private sector: awareness of links to their business, impacts and promote governance
- DFIs: coordinated efforts taking into account spatial and sectoral linkages





Thank you

panda.org



+100

WWF is in over 100 countries, on 6 continents

1961

WWF was founded In 1961



+5,000

WWF has over 5,000 staff worldwide

+5M

WWF has over 5 million supporters