Water Stewardship

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Outline

• Water and Business trends
• Water Risk
• Stewardship
• NGOs and water security
• Questions?
Why is water an issue?

Our current global water challenges

- 41% of humans live in areas of severe water stress
- 1.1 B people lack access to safe drinking water, 2.6 B lack adequate sanitation services
- Freshwater species are declining the fastest (70% decline of Living Planet Index since 1970)
- Most industrial wastewater is disposed without treatment

These challenges will grow due to 3 megatrends

- Global population will peak at 9 B by 2050
  - 65% of population and 1/3 of the land area in severe water stress
  - 3 B additional people in cities
- Temperature increase
  - Higher weather variability, less freshwater stored in ice, more droughts and floods
- Urbanization and rising incomes, especially in BRIIC countries
  - Double irrigation for food demand
What changed? Footprint to Risk

Water Supply Crisis
Example 1: Scarcity in the Yangtze River

120 km of the Yangtze River seriously affected

- Shipping / transportation
- Energy production (hydro power)
- Agriculture
- Businesses in the watershed / delta
Example 2: Drought in Texas

Worst drought in Texas in 50 years

- 9 new coal-fired power plants planned – but now heavily opposed by farmers and residents
- Inflation in wheat prices of 43% and of other soft commodities
- Expected adjustments of water allocation/regulation
Example 3: Asparagus in the Peruvian desert

Aquifers declining

- impacts on other farmers and local communities
- Significant impact on donor lending criteria as a result
- Supermarkets rejection of asparagus until sustainability criteria in place
Example 4: Stranded assets

Anglo-American has 1 Billion USD of stranded assets in one mine due to water.
Example 5: Reputations and NGO scrutiny

‘A survey of 350 CEOs of Fortune 500 companies found that 92% agree that a water crisis is looming and 70% believe that the risks of water scarcity are equal to those of carbon emissions.’

MIT Sloan & The Boston Consulting Group
Example 6: Investors

Investors also know how damaging inaction, inappropriate action or delaying interventions on water-related issues can be... The global economy will favour businesses that take a pro-active approach to water stewardship.

Eurizon Capital

Watch water
A guide to evaluating corporate risks in a thirsty world

FEBRUARY 13, 2013

SPECIAL COMMENT
Global Mining Industry
Water Scarcity to Raise Capex and Operating Costs, Heighten Operational Risks
Example 7: Investors – CDP report 2013

70% report exposure to one or more water-related risks that could substantively affect their business.

Two thirds of risks expected to impact both direct operations (65%) and supply chains (62%) are anticipated to materialize now or within the next five years.

Only 6% of have targets or goals for community engagement, 4% for supply chain, 3% for watershed management, 1% for transparency, and no respondents set concrete targets or goals around public policy.
## Matrix of water-related risks

<table>
<thead>
<tr>
<th>Type of risk</th>
<th>Supply chain</th>
<th>Production process</th>
<th>Product use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td><img src="image" alt="Commodity price spikes" /></td>
<td><img src="image" alt="Disruption in water supply" /></td>
<td><img src="image" alt="Scarcity limiting sales" /></td>
</tr>
<tr>
<td>Regulatory (+ litigation)</td>
<td><img src="image" alt="Water quality standards constraining power generation" /></td>
<td><img src="image" alt="Court settlement to scale back operations" /></td>
<td><img src="image" alt="Insecure water rights" /></td>
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<tr>
<td>Reputation</td>
<td><img src="image" alt="Multinationals’ suppliers singled out for violations" /></td>
<td><img src="image" alt="Competition with social uses" /></td>
<td><img src="image" alt="Profligate water use" /></td>
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Private sector in Development and partnership?
What are companies doing?

Companies (sometimes in cooperation with WWF) have started to take action
  • Very different levels of experience and engagement
  • More and more money is available for work on water

Most projects focus on
  • Development of baseline data
  • Optimizing water efficiency
  • Reduction of pollution
  • Engagement with supply chain
  • Stewardship is taking off

Do these actions help us achieve our conservation aims?
Freshwater biodiversity is declining fastest

WWF helps establish the Ramsar Convention, an international agreement protecting wetlands and fragile freshwater and coastal ecosystems.

Yangtze River Dolphin functionally extinct.

WWF’s Living Planet Index 2012 shows:
- Tropical freshwater index: -70%
- Freshwater species index: -37%

Largest decline of any biome.

2013:
- 2.3bn people affected by moderate to severe water stress
- 70% of world’s water withdrawal used by agriculture to make food, fibre and bioenergy
- 200,000km²
- Yangtze Wetland Conservation Network established in China, protecting 150 wetlands and reconnecting 50 lakes with Yangtze mainstem
- 2,000+ wetlands covering over 2 million km² included on the Ramsar list
- Only 47 of the world’s large rivers longer than 1,000km remain free-flowing
- 12 of world’s large rivers better managed to achieve secure water future

2020:
- WWF Target
Must engage with power
Water as a shared risk

**Government**
- Social / economic development
- Health
- Institutional

*Political risk*

**Corporate sector**
- Physical (quantity + quality)
- Reputation
- Regulation

*Economic value at risk*

**Environmental NGOs**
- Bio-physical (quantity + quality)
- People
- Governance

*Ecosystem at risk*
Ultimate goals per step for WWF:

Governments incentivized and motivated to manage and invest in water basins in a sustainable way

Companies, communities, public sector and NGO’s are engaged together in collective action to address issues

Companies take action to optimize internal water governance, improve water efficiency and reduce pollution

Companies have detailed understanding of impact they and their suppliers have (incl. footprint & risk)

Companies, their suppliers and customers have (high level) understanding of the global water challenges, and their dependence on freshwater
WWF Stewardship steps – Our Theory of Change

- Private goods
- Direct control
- Efficiency of resources
- Products
- Internal environment
- Impacts
Knowledge of impact

Internal action

Collective Action

Influence governance

Water awareness

Knowledge of impact

Internal environment

Products

Private goods

Direct control

Efficiency of resources

Public goods

Indirect control

Allocation of resources

Places

External environment

Impacted

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<td><strong>Water Footprint</strong></td>
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<td><strong>Insurance Risk</strong></td>
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Understanding risk, and how to take action

• Free available online tool
• Completely independent - allowing selection of (peer-reviewed) datasets best indicating business risks
  – Plus indicators that are helpful when responding to risks
• WWF water risk framework now widely used in other tools and by consultancies
• Plot facilities on >50 map overlays (soon >500)
• 193 unique country profiles
• >200 mitigation options and >100 case studies
• User data is protected, but results can be turned directly into a CDP report
• WWF provides direct support
Agricultural Water Risk Assessment
Assess the water risk of agricultural commodities

START RISK ASSESSMENT NEW ASSESSMENT TYPE FOR AGRICULTURAL COMMODITIES

Water is becoming a hot topic for business, yet most companies don’t know where to start in understanding and responding to water issues. This tool is designed to help companies and investors to ask the right questions about water - to assess risks and give guidance on what to do in response. The Water Risk Filter is designed to be easy to use, yet highly robust in the results that are generated. We want to enable users to plan and create strategies for their own company, suppliers or investments to drive down risk and become proactive in responding to water issues they face - and by doing so, become better water stewards.

For WWF and DEG, estimating the perfect risk score is not the end goal. The scores are instead the best and most accurate reflection of the multiple issues that companies face around water and should guide a company into a position of proactive engagement on water. We believe that by generating interest and guidance on water actions, we can improve how water is managed, measured and improved for society, the economy and the environment.

This tool is evolving
Please support the further development with:
- your voluntary financial contributions
- your case studies and mitigation responses
- suggestions for better underlying data sources

Chinese Coal Company Under Fire Over Chemical Spill
Peru: Only 10 Percent of Water in Rural, Jungle Communities is Fit for Human Consumption
Canada’s Xumtor Gold Company Poses Threat to Water Supply: Kyrgyz Government
New Violence Claims 10 Lives in Kenya’s Tana Delta
British-Owned Furniture Maker Fails to Comply With Vietnamese Authorities Over Pollution
Linking to relevant global initiatives
In ‘Priority’ Basins ~5,000 facilities reported
But ~80% in 4 areas only: South Africa\(^1\), Eastern Africa\(^2\), Danube, Yangtze

~80% of all reported facilities in priority river basins

1. All basins in South Africa
2. All basins in East Africa (Burundi, DRC, Kenya, Rwanda, Tanzania, Uganda)
3. All basins in Turkey
4. Parana excl. Argentina
5. All basins in Colombia excluding Amazonas
6. Rio Bravo
7. Western Balkan countries excl. Danube

Note: Tests, webinars and other fake facilities have been removed, some may remain in the current database but numbers are insignificant

Source: WRF, Dec 2013 – Jan 2014
Of which a majority in agriculture (>2,500) and in clothing & apparel (~500)

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Source: WRF, Dec 2013 – Jan 2014
Responsible business engagement with water policy?

Core Principles for Responsible Engagement

Principle 1: Advance sustainable water management

Principle 2: Respect public and private roles

Principle 3: Strive for inclusiveness and partnerships

Principle 4: Be pragmatic and consider integrated engagement

Principle 5: Be accountable and transparent
What about?

• Legitimacy, policy capture, access, Intent, equity?

1. Water is a highly complex public resource with multiple socially defined functions and values. Its effective management requires the continual reconciliation of trade-offs between private interests and collective well-being, not to mention fulfilment of a fundamental human right.

2. Although they must “have regard to” wider social and environmental interests, many companies are legally obliged to prioritize a narrow set of shareholder interests.

3. How will we tell if this is green-wash or beneficial?

4. What is water security for an NGO?