Corporate Response to Water Risks in a Changing Climate

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Overview

• Water in a changing climate
• Water risks to business
• Corporate response
• Questions
Water Impacts

• Availability (timing, form, intensity)
  – Uncertain supply
  – Increased demand

• Water quality

• Accessibility to safe water

• Floods, other hazards
Growing Risks to Business

• ~2/3 corporations expect water risk to cause substantial changes to their business (CDP, 2015)

• ~1/2 Corporations identified immediate substantial risk and/or impacts (CDP, 2015)

• Water risk is the number one threat to global economy (World Economic Forum, 2015)
Key Water Risk Drivers

Risks will grow as competition for water increases
Financial Impacts
Value at Risk

Electric Utilities
USD 21 billion in electricity sales at risk

Gold
USD 221 billion in gold reserves at risk

Steel
USD 17 billion in steel sales at risk

Water Risk → Financial Risk → Equity Volatility Risk
Efficiency in Operations

Improve water efficiency in our plants by 20% by 2020

By 2020, improve water efficiency in manufacturing operations by 25%

By 2015, our water consuming products such as taps, dishwashers and washing machines shall be 50% more efficient than average products...
Water Stewardship – Beyond Efficiency

Compliance

Water efficiency

Water risk reduction

Water stewardship

• Meet Regulations
• “Do no harm”

• Reduce operational water use
• Treat & reduce wastewater

• Measure water use and risks in operations & supply chain
• Mitigate water risks where needed

• Contribute to more sustainable management of shared resources
Case Study Examples

• PepsiCo
• The Coca-Cola Company
• Keurig Green Mountain
• MillerCoors
• Levi Strauss & Co
• Water efficiency in direct operations
• Water conservation in agricultural supply chain
• Integrated watershed management
• Partnering to provide safe water
• Public water advocacy and engagement

Direct seeding of rice can yield 30-35% water savings

Photo credit: Columbia Water Center
Assess the vulnerabilities of the water sources for each of our bottling plants and implement a locally relevant source water protection program

Replenish the water used in our finished beverages by participating in locally relevant projects... to produce a volumetric benefit equivalent to our global beverage production volume.
Other “Water Balance” Goals

Balance the water volume of our beverages through projects that restore an equal volume of water...(2020)

Replenish water used in final products in water stressed areas (2020)

Have a positive impact on water resources in water-scarce areas (2030)

Become water neutral regarding our use of fresh water in operations (2016)

Become water neutral (2044)
By 2020 we will engage 1 million people in our manufacturing and agriculture supply chains to significantly improve their livelihoods including water security and climate resilience.
• Continue to reduce our water-to-beer ratio to achieve an average ratio of 3:1

• Restore a volume of water equal to the final product volume from our breweries...

• Manage and reduce water risks in 100 percent of our key barley-growing regions

Photo credit: MillerCoors
HOW WE SAVED ONE BILLION LITERS OF WATER
Corporate Water Stewardship Tools
Water Footprinting

• Accounts for direct and indirect use
• Water volumes consumed and/or polluted
• Locations & timing of use (not just volumes)
Water Risk Assessment

Supply vs. Demand

Biodiversity

Governance

Water Pollution

Media Coverage

Drought Severity

Water Access

Water Pollution

Erik Enbody

World Vision

Flood Occurrence
WRI Aqueduct Water Risk Atlas
Agricultural Exposure to Water Stress

Agricultural exposure to water stress

Competition for and depletion of water in major agricultural areas

Irrigated Agriculture
All Cropland
Major Commodity Crops
Cocoa
Coffee
Cotton
Maize
Oats
Oil Palm
Oranges
Canola
Rice
Rubber
Soybeans
Sugar Cane
Wheat
Crop Groups
Cereals
Fiber Crops
Fodder Crops
Fruits

Statistics

Wheat
This chart shows what percentage of wheat is grown in areas facing different levels of water stress.

Average Water Footprint
This crop consumes 1,827 m³ of water per ton of yield.

Aqueduct's baseline water stress is a measure of demand and supply for water in a given area, and is calculated as the ratio of local water withdrawal over available water supply.
Beverage Industry Collaboration

• Joint commitment on climate change:
  – Manage risks in supply chains
  – Reduce water footprint of agriculture
  – Conserve water in operations

• Supply chain collaborations (examples):
  – Bonsucro
  – Sustainable Agriculture Initiative
CEO Water Mandate

• Direct operations
• Supply chain watershed management
• Collective action
• Public policy
• Community engagement
• Transparency
Water stewardship:
The use of water that is socially equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site and catchment-based actions.

Good water stewards understand their own water use, catchment context and shared risk... and then engage in meaningful individual and collective actions...
The Water Benefit Certificate Project Cycle

Water Benefit Certificate Buyer

WBCs
= annually verified water & socio-economic outcomes

The Gold Standard®

Water Benefit Projects

The WBS
is a results-based financing mechanism to support water projects based on the issuance of Water Benefit Certificates
Transparency

• Many disclosure requests:
  – 10K financial filings
  – Sustainability Reports (GRI)
  – CDP Water Disclosure
  – Dow Jones Sustainability Index

• Many metrics:
  – Water performance
  – Water risk

Key Observations

• Response is highly variable
• Water competes with other environmental issues
• Risk is not always primary driver; some see opportunity
• Consumer messaging can be difficult
• Partnerships with other companies, NGOs & governments essential
• Engagement in water policy may be met with skepticism
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