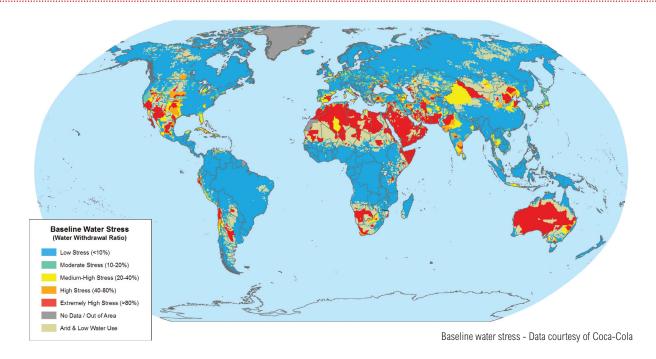
# \*\*\*\* AQUEDUCT



# MEASURING AND MAPPING INDICATORS OF WATER RISK

Water scarcity is emerging as one of the defining issues of the 21st century. Diminishing supply of water, decreasing water quality, competition over scarce resources and poor water management are making water a top priority for the private and public sectors alike.



FOR COMPANIES, INVESTORS, AND OTHER STAKE-HOLDERS, water scarcity is no longer just an environmental issue, it is a source of serious risks that demand to be understood, measured, and managed. Water risk can take many forms, from disruption of operations at power plants to competition between conflicting uses of water to increasing costs for obtaining or treating water.

The World Resources Institute's Aqueduct project identifies, measures, and maps the key indicators that drive water risk with an unprecedented level of detail. Aqueduct's maps, and the comprehensive database of water information at their core, are designed to:

- HELP COMPANIES AND INVESTORS understand the strategic importance of reducing water risk exposure in highstress areas. Aqueduct can help users identify potential sources of water risk in their operations and supply chains, and select and implement the right risk mitigation solutions.
- **ENCOURAGE PUBLIC SECTOR LEADERS** to collaborate with water users and communities to achieve more equitable, efficient, and sustainable water resources management in water-stressed basins.
- HIGHLIGHT TRENDS AND OPPORTUNITIES for innovative solution providers creating the next generation of water management technologies, techniques, and policies.

# WATER IN THE 21<sup>ST</sup> CENTURY Scarce, Unpredictable, Risky

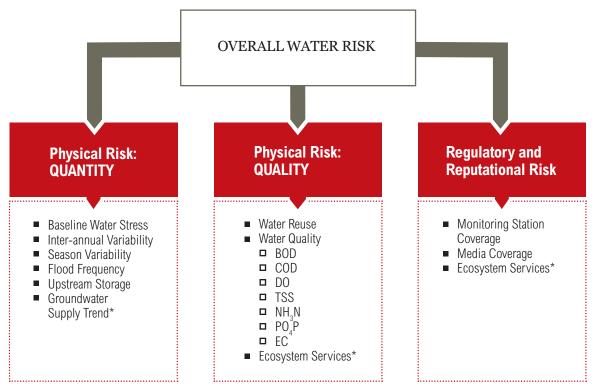
- 2 BILLION PEOPLE are currently affected by water shortages (WHO/ UNICEF)
- 50% INCREASE in water use in developing countries by 2025 (UNEP)
- **18% INCREASE** in water use in developed countries by 2025 (UNEP)
- 70% OF GLOBAL WATER consumed is used for agriculture (FAO)
- 39% OF SURVEYED COMPANIES
   have already experienced detrimental impacts related to water (CDP)

THE RIGHT TOOLS AT THE RIGHT SCALES | Aqueduct provides high-resolution interactive maps of indicators of water risk at both a global and a river basin scale.

**AQUEDUCT'S BASIN MAPS** use a framework of different indicators of water risk (see Aqueduct Risk Indicator Framework) to create detailed maps of water risk in some of the most water stressed and economically critical river basins around the world. The peerreviewed Aqueduct risk framework brings together numerous indicators that can contribute to water risk including supply stress, supply variability, quality, and public awareness of water issues. Through consultation with river basin commissions, public sector decision makers, local universities, and other water experts, Aqueduct obtains the best available national, state, and local level data to calculate and map these indicators. The Aqueduct basin mapping tool then combines the indicators together layer by layer to create composite risk maps that display many of the drivers of water risk simultaneously.

**AQUEDUCT'S GLOBAL MAPS** display physical water stress conditions worldwide. These maps, based on sophisticated hydrological models, show how much pressure is being put on renewable water supplies around the world. The global maps also include projections of how water stress levels could change in the coming decades under a number of different scenarios of population growth, economic growth, and climate change.

## AQUEDUCT RISK INDICATOR FRAMEWORK



<sup>\*</sup> Indicators under development

#### FRAMEWORK HIGHLIGHTS:

- Fourteen indicators that can contribute to water risk for companies, investors, and other stakeholders
- Backed by a transparent database of publicly available data
- Combined to create clear and comprehensive composite basin maps of overall water risk
- Users can make maps which reflect risks facing a specific sector or user by adjusting the importance of each indicator

**AQUEDUCT WATER RISK NEWS** is a feature under development that will search a wide array of sources for water news articles and analyses. Water news stories will be organized by theme and layered graphically on top of Aqueduct's global and basin water maps to provide an up-to-date picture of the water issues making headlines around the world.

### **AQUEDUCT BASINS**

#### **MAPPED BASINS:**

- Yellow River, China
- Orange-Senqu, Southern Africa
- Murray-Darling, Australia
- Colorado, USA

#### **PENDING BASINS:**

- Mekong River, SE Asia
- Yangtze River, China

### A NETWORK OF PARTNERS

Water dependence, the risks that dependence can pose, and the solutions to those risks vary widely from audience to audience. To help understand and capture the subtle differences in how water risk is viewed and measured, Aqueduct has assembled a diverse network of partners and supporters. This network, founded by original sponsors General Electric and Goldman Sachs, includes corporations, philanthropies, academics, and NGOs with a wide range of sector, geographic, and issue expertise.

To learn more, or to use the Aqueduct tools, visit http://wri.org/aqueduct or follow us on Twitter @WRIAqueduct

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