



The Value of Public-Private Partnerships in Addressing Water Issues

Water-Energy Nexus

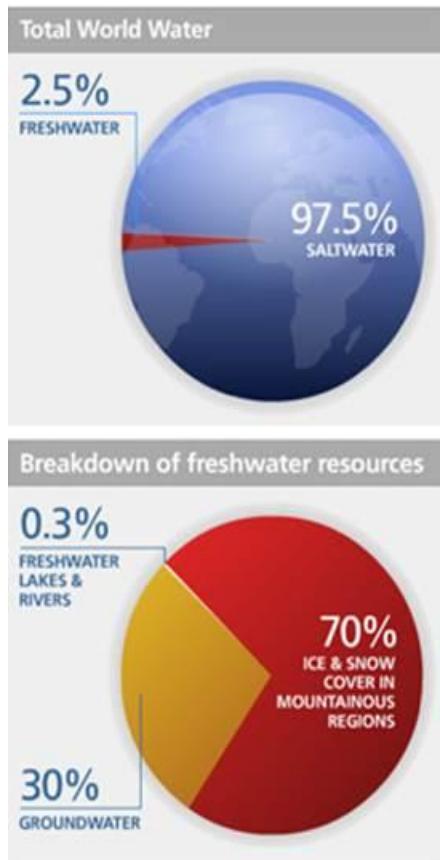
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100 YEARS OF
ACCELERATING
TOMORROW

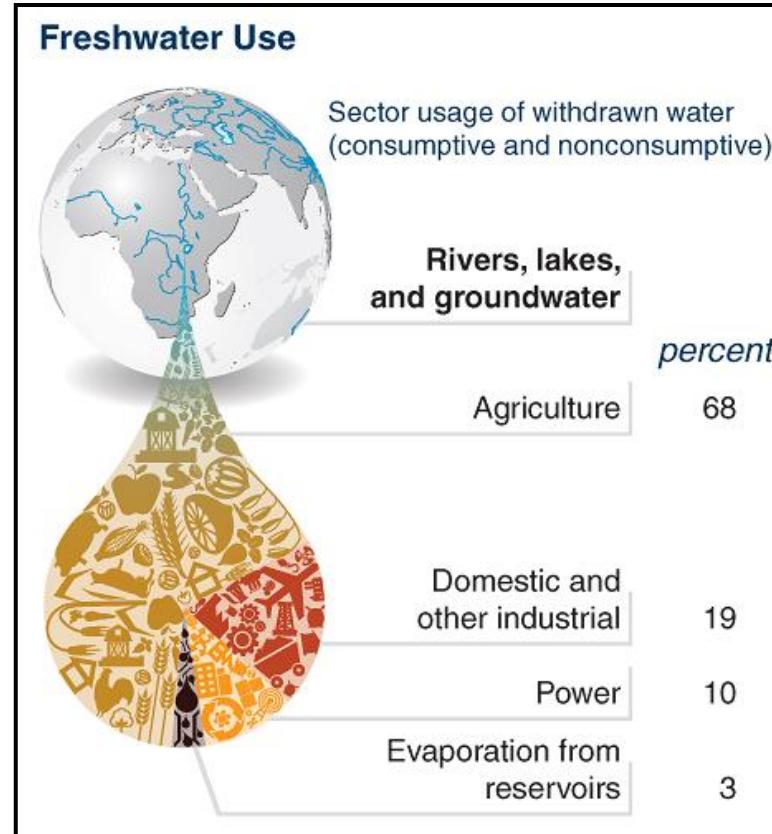
Energy Intensity



Global Water Use



Source: http://www.unwater.org/statistics_res.html



Source: National Intelligence Council Water Research, Rich Engel, 2012
www.wilsoncenter.org/sites/default/files/Engel%20Presentation.pdf

Limited Availability, Increasing Demand

Global Water Issues



www.water.cc/



http://images.nationalgeographic.com/wpf/media-live/photos/000/419/cache/thailand-floods-unesco-gate_41930_600x450.jpg



<http://peakwater.org/tag/water-shortage/>



Source: New York Times,
<http://www.nytimes.com/2009/02/12/us/12drought.html>
<http://www.nytimes.com/2009/02/12/us/12drought.html>

Sustainable Energy Solutions

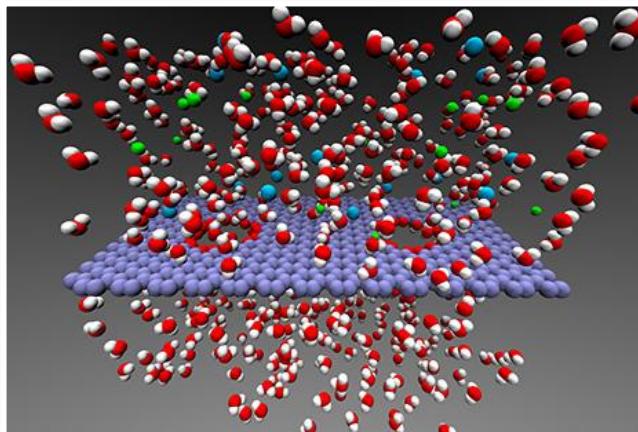


Climate Change Opportunities

Geostationary Operational Environmental
Satellite R-Series (GOES-R)
Space-Based Climate Monitoring



Perforene™
Sustainable Water



Ocean Thermal Energy
Conversion



SEEsuite Energy Management
Systems



Nanotechnology
Light Weighting of Products



Partnership Thought Starters

- Infrastructure
 - Sensor networks
 - Leak detection
 - Real-time monitoring
 - Cyber security – pull out quote from threat assessment which called out terrorist threats to water supply
- Innovation
 - Energy alternatives with lower water intensity (energy generation which does not require a steam phase to turn turbines)
 - Apply technology to reduce Agricultural water use
 - Space-based monitoring of farmland conditions (soil quality, local freshwater availability, etc.)
 - Advanced ground-based sensors
 - Advanced/localized weather predictions

Partnership Thought Starters

- Industry Partnerships
 - Universities with Agriculture Colleges, Energy Programs, etc.
 - Federal Government (national security, space-based programs)
 - State and Local governments
 - Water purveyors
 - Energy companies / utilities



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