

Worldwide Market Trends – Water

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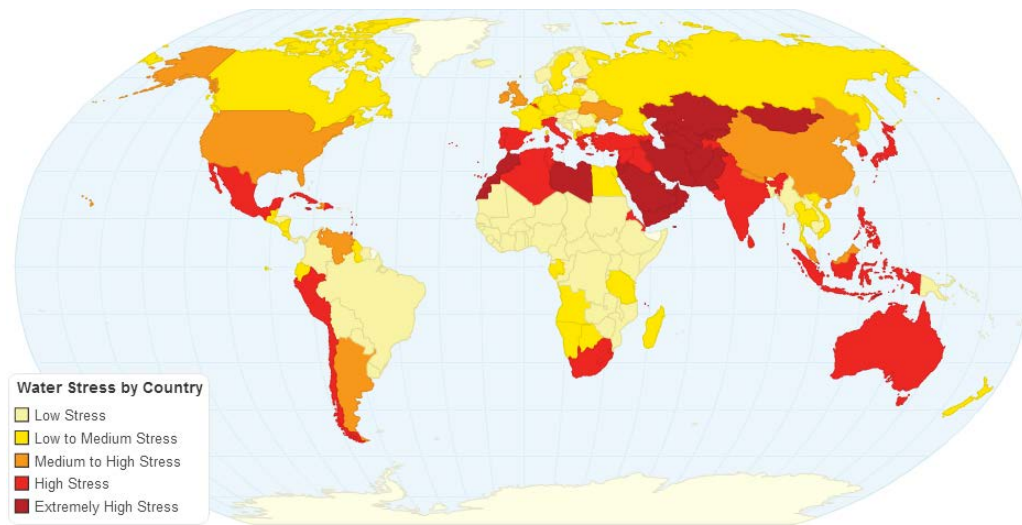
Few Resources are invaluable BUT:

- **Water is priceless**
 - Without water we have no energy
 - Without water we have no food
- **For more than a century, humanity has ignored depletion of water resources**
 - “the world will never run out of water”
 - Average water use per day in USA – 600 litres per person per day!!
 - Few solid estimates of remaining potable water resources
 - Most of world’s usable water is either brackish or saline
 - High energy use

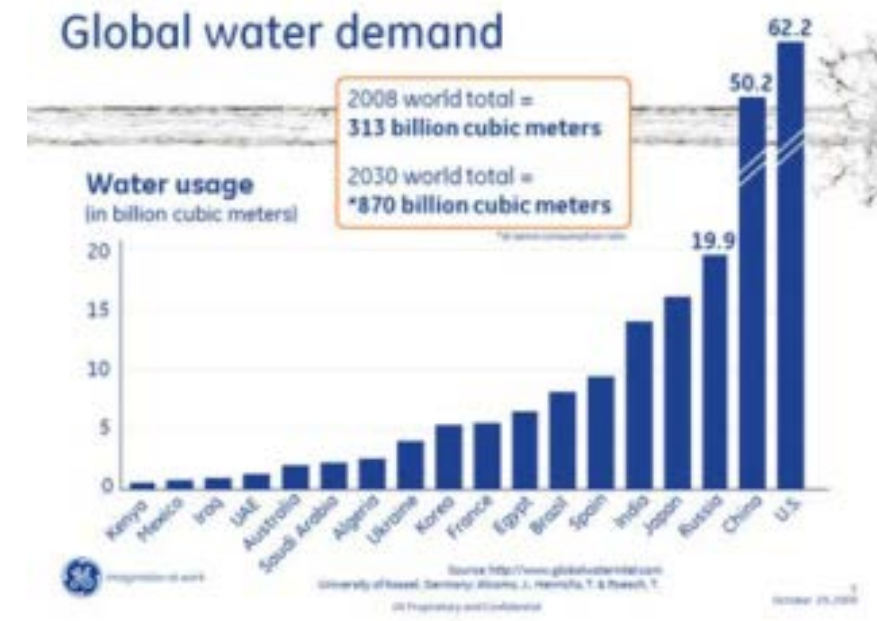


No Substitutes for Potable Water

- **Population Growth increases stress on water resources**
 - For water and sanitation
 - Food production
 - Energy consumption
- **Many megacities face “water shortages”**
- **Water Scarcity a Health Hazard**



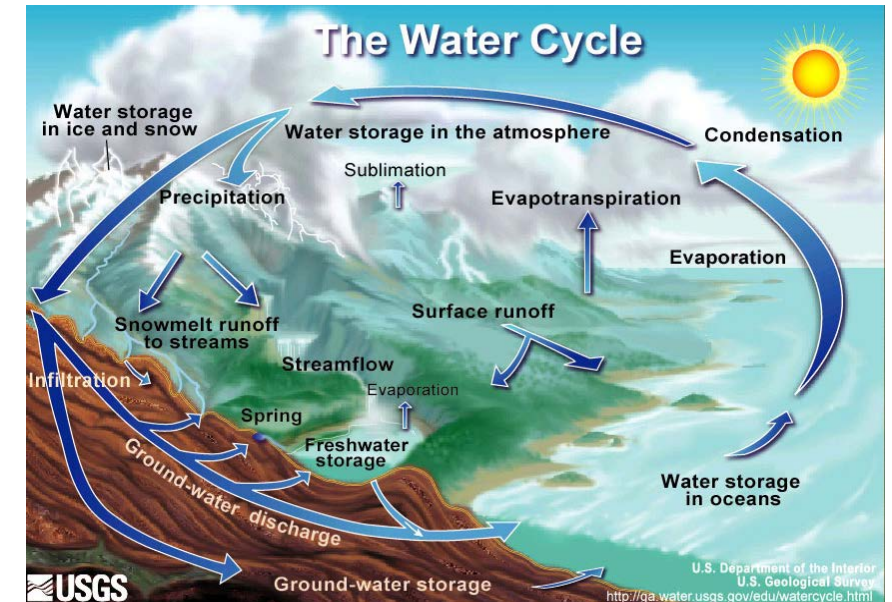
Global water demand



A Changing World of Water

- Climate Change
- Low Amount of Fresh Water is available from rivers, lakes and streams
- Knowledge of aquifer water levels is sketchy

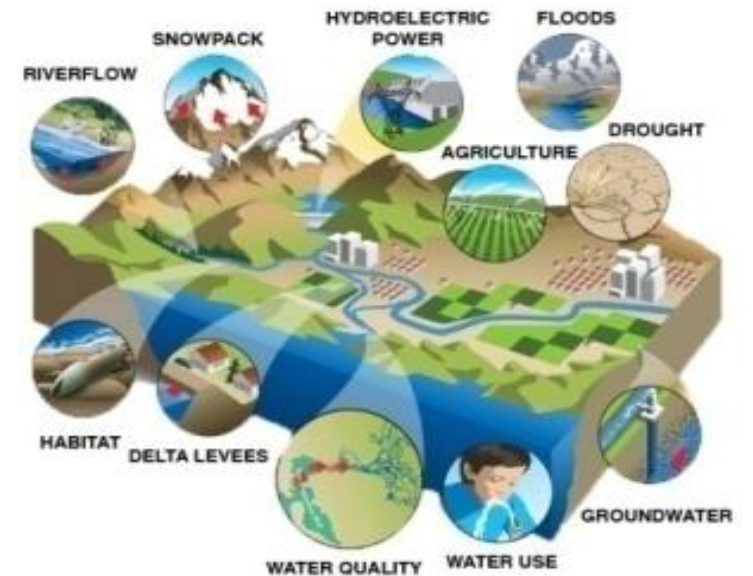
	Environmental Effects	pH Value	Examples
ACIDIC ↑		pH = 0	Battery acid
		pH = 1	Sulfuric acid
		pH = 2	Lemon juice, Vinegar
		pH = 3	Orange juice, Soda
	All fish die (4.2)	pH = 4	Acid rain (4.2-4.4) Acidic lake (4.5)
	Frog eggs, tadpoles, crayfish, and mayflies die (5.5)	pH = 5	Bananas (5.0-5.3) Clean rain (5.6)
NEUTRAL ↓	Rainbow trout begin to die (6.0)	pH = 6	Healthy lake (6.5) Milk (6.5-6.8)
		pH = 7	Pure water
		pH = 8	Sea water, Eggs
		pH = 9	Baking soda
		pH = 10	Milk of Magnesia
		pH = 11	Ammonia
		pH = 12	Soapy water
		pH = 13	Bleach
BASIC ↓		pH = 14	Liquid drain cleaner



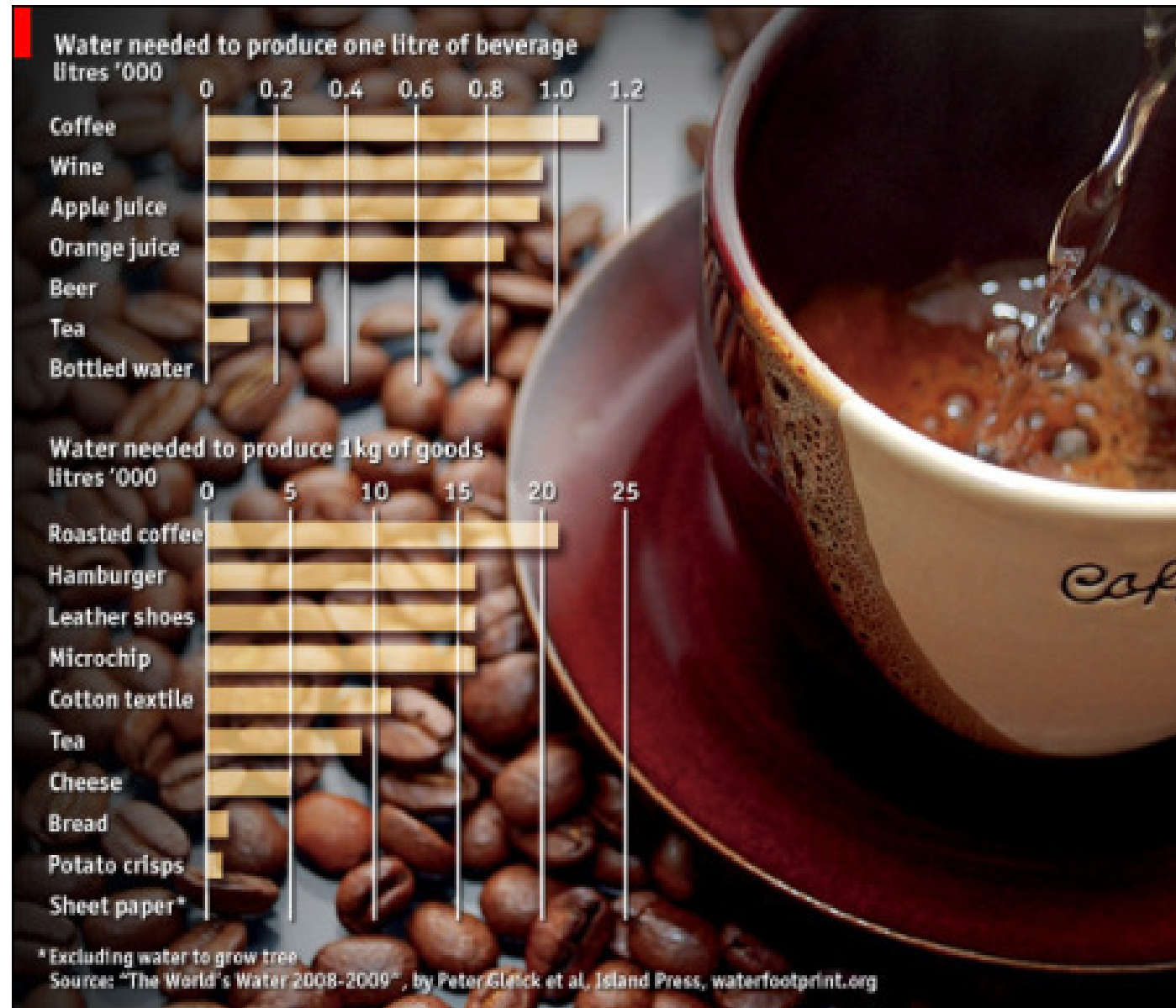
Market Trends in the Water Supply Industry

Better management of water resources and water network

- Reduce Non Revenue Water
- Water reuse
- Reduce Energy use
- Storm water recharge
- Water Acquisition
- Integrate platforms – i.e. SAM, SCADA, SAP/HANA, PI, AMR,
- Make data intelligent and transparent
- Minimize disruptions



Remember....



QUESTIONS?

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