


# **The Value of Water:** A framework for understanding water valuation, risk and stewardship

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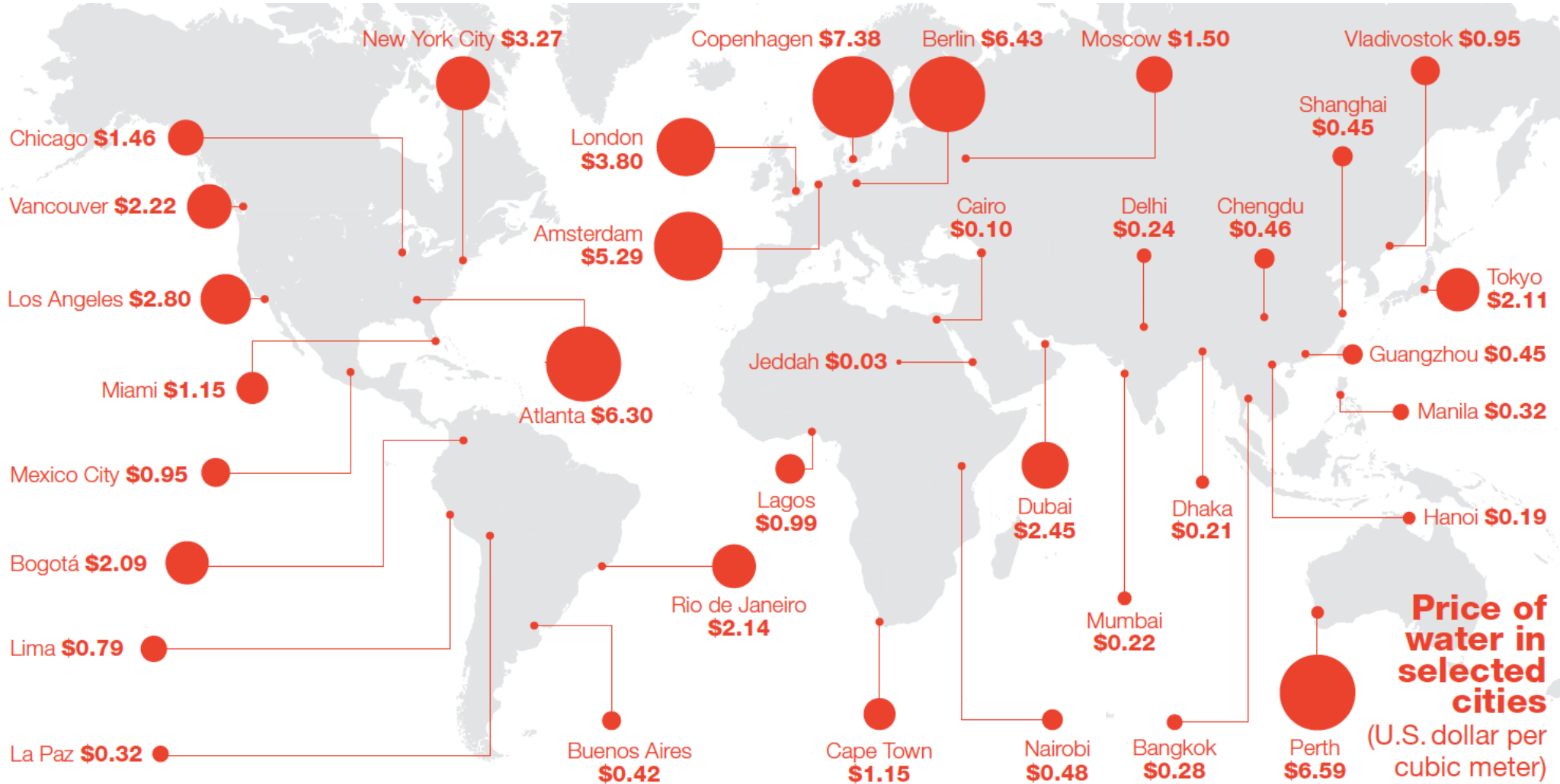
Reflecting on the  
value of water



**THE COLORADO RIVER** GENERATES **\$1.4 TRILLION** IN ECONOMIC BENEFITS ANNUALLY

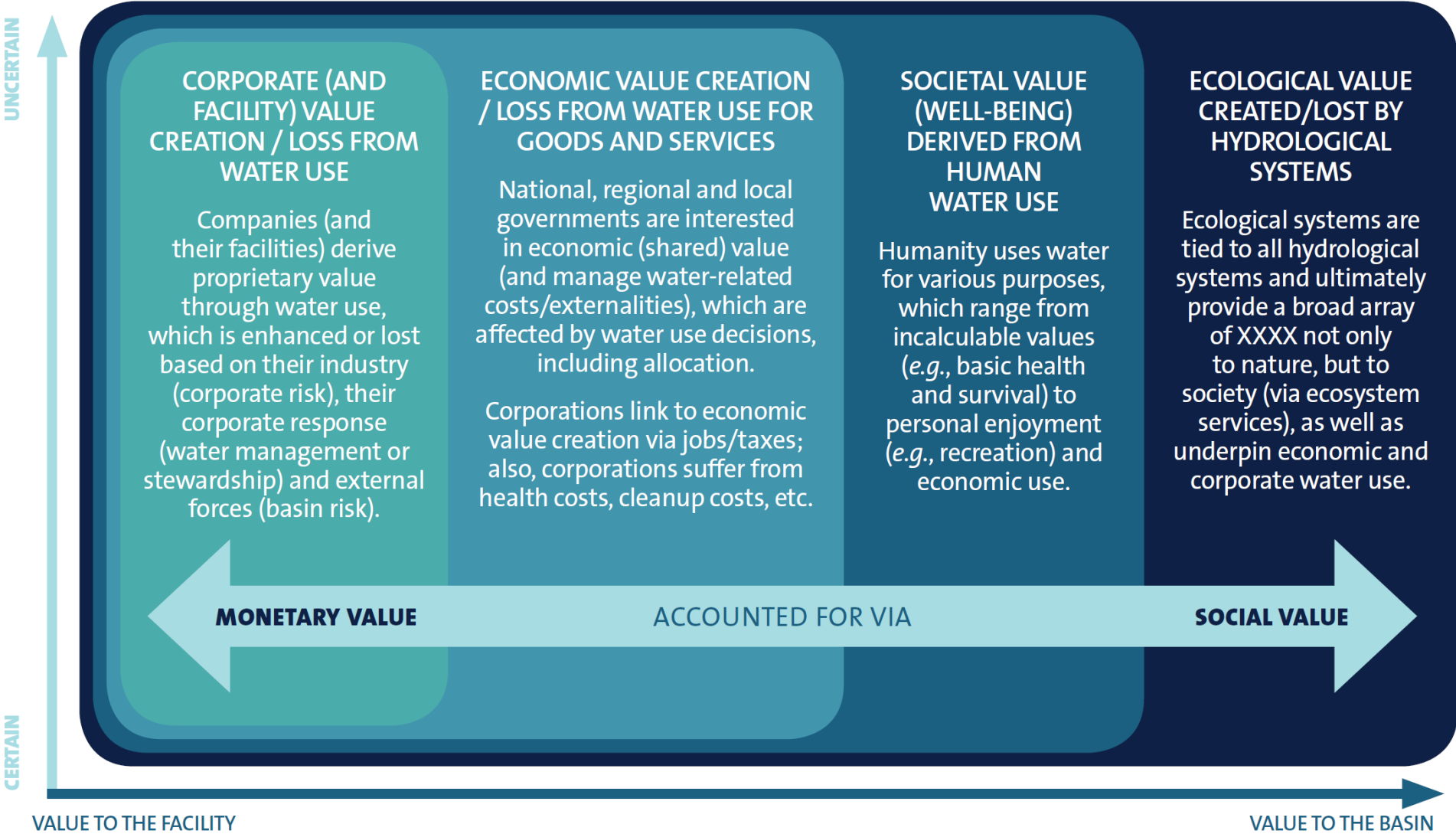
The river supports a diversity of industries located in the seven Colorado River basin states, including a \$26 billion recreation economy that is not fully accounted for in the ASU study.<sup>1</sup>

# Price ≠ Value

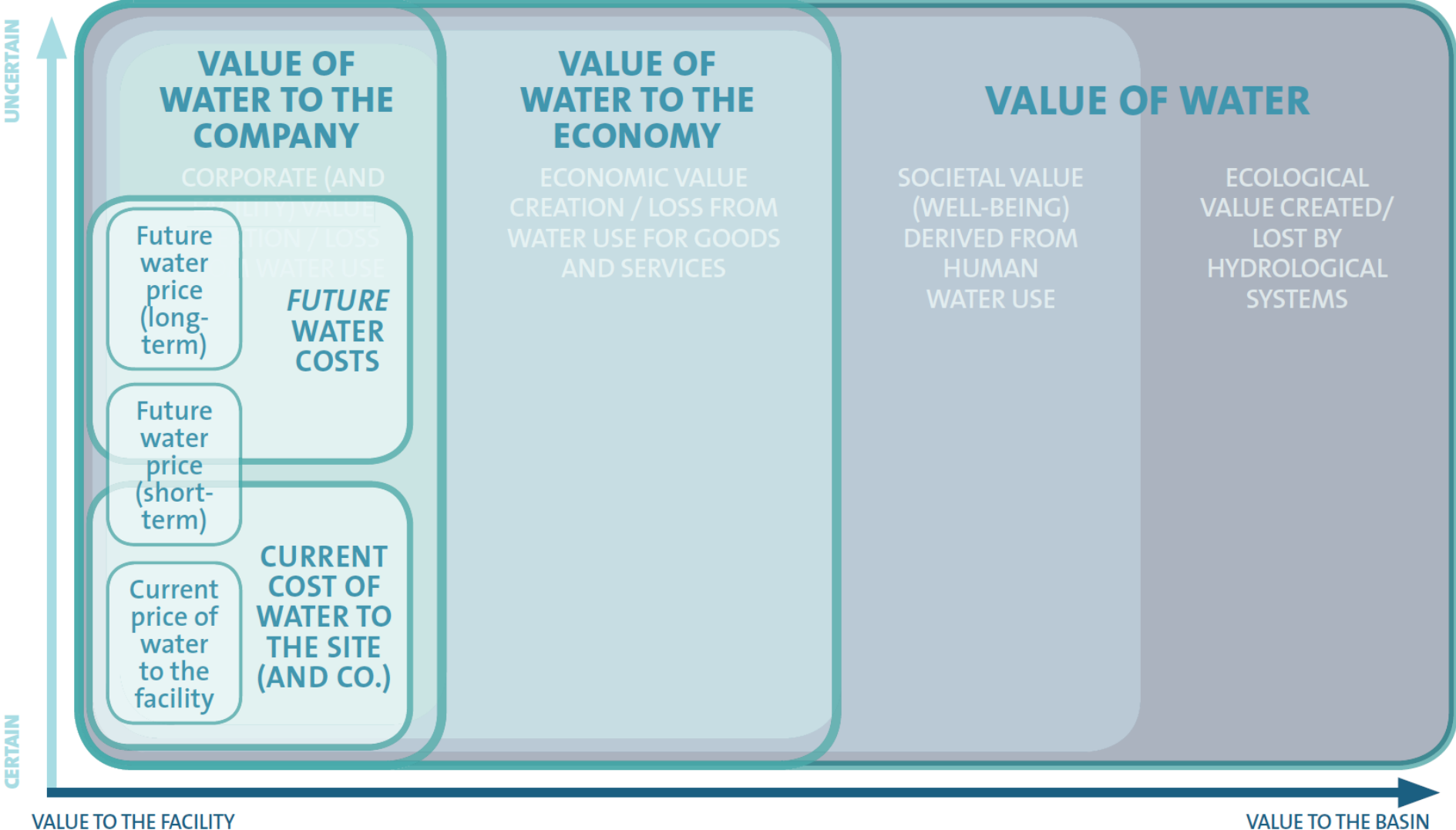


Source: Fortune, 2014

# The Value of Water Varies by Time & Space



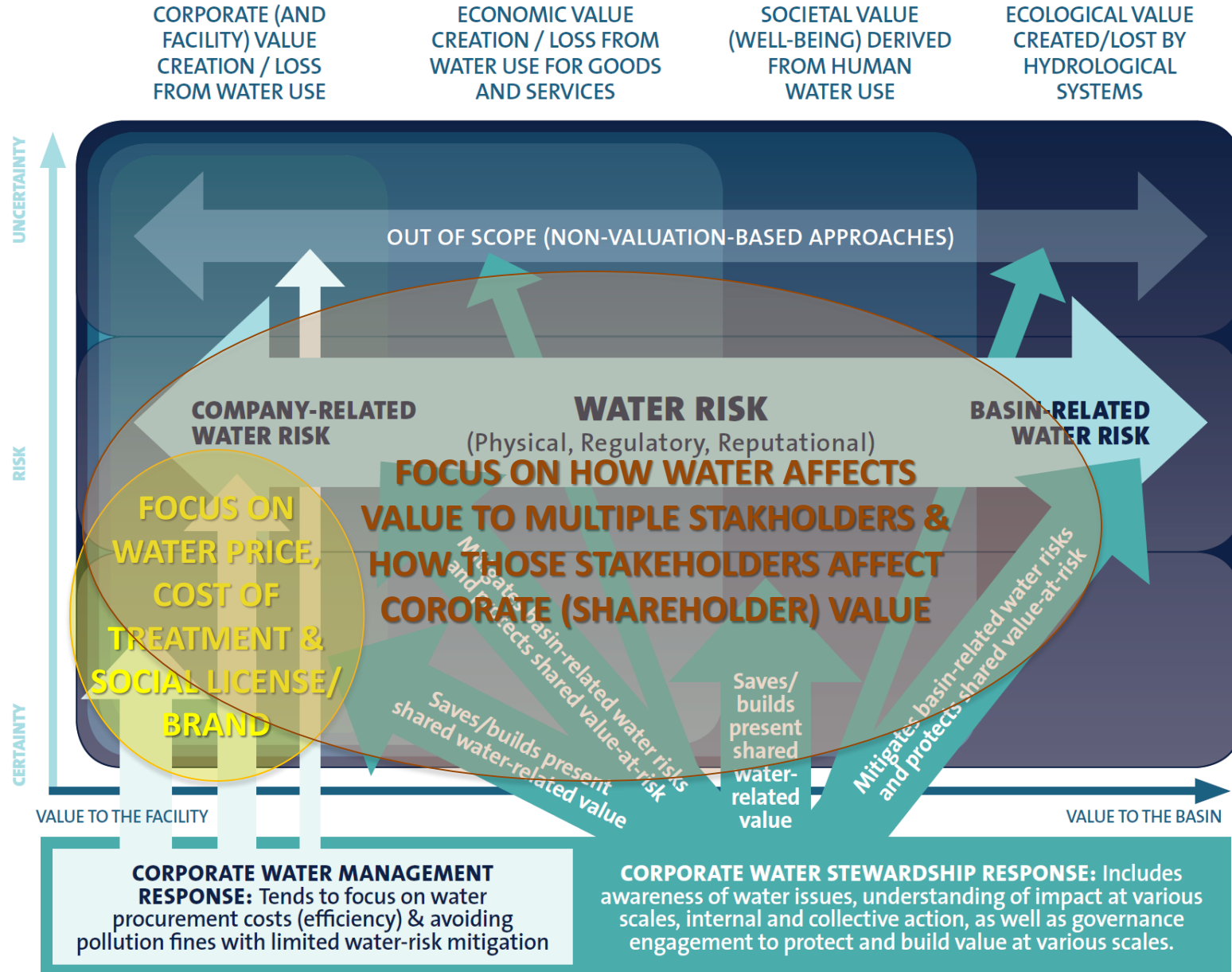
# Always distinguish price, cost & value



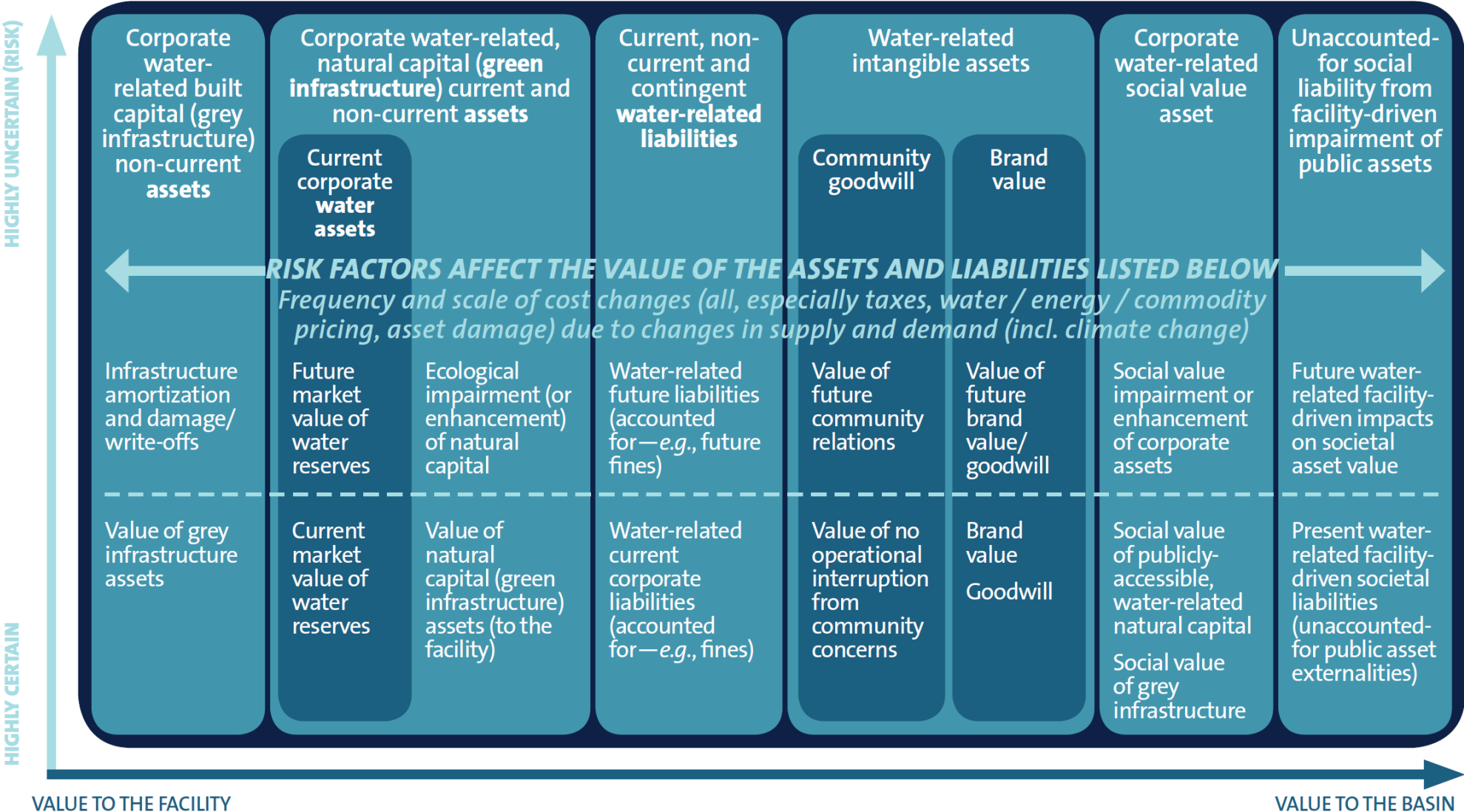
# Water Stewardship harnesses more value than water management

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.*

- The Alliance for Water Stewardship

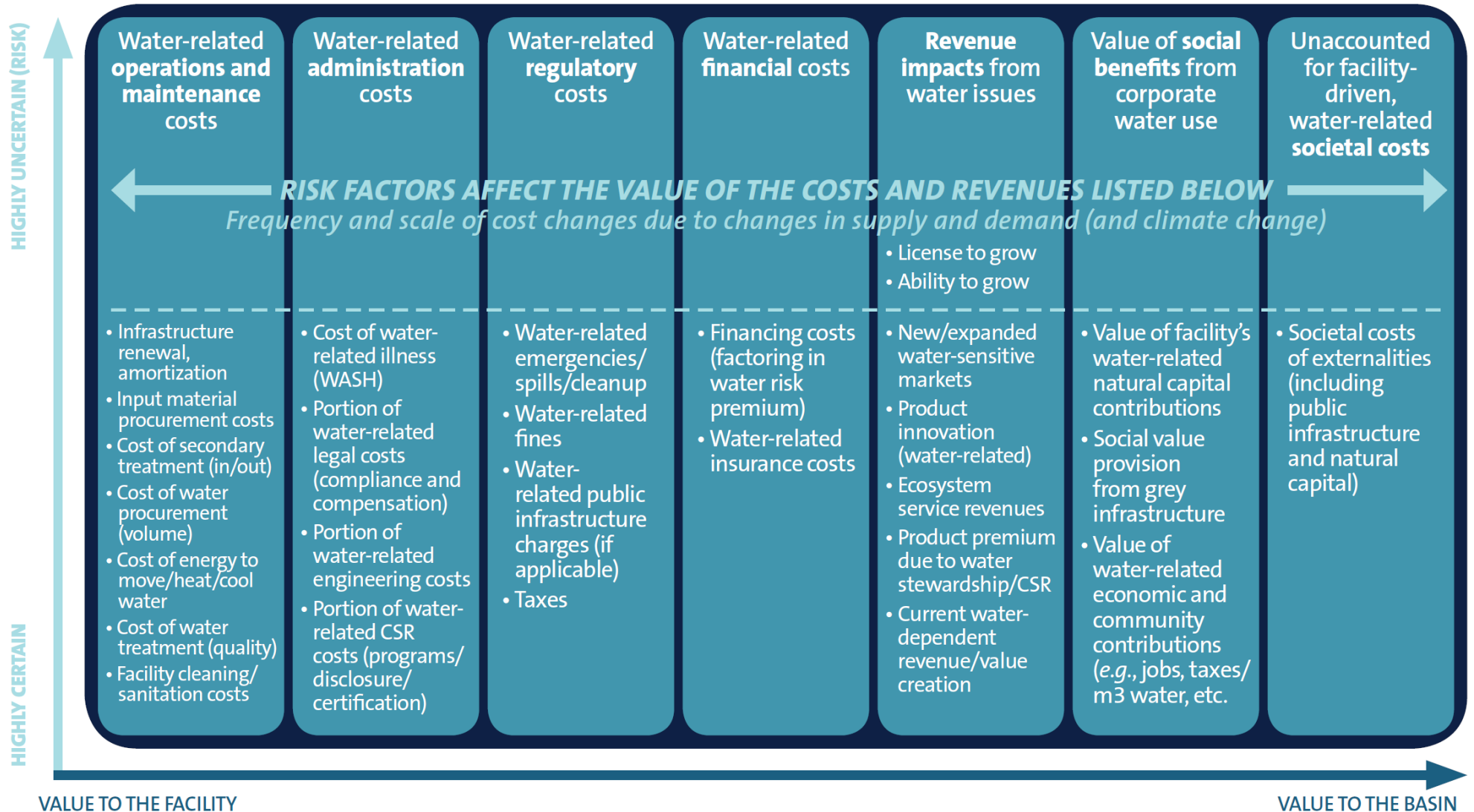


# The Value of Water as a Balance Sheet

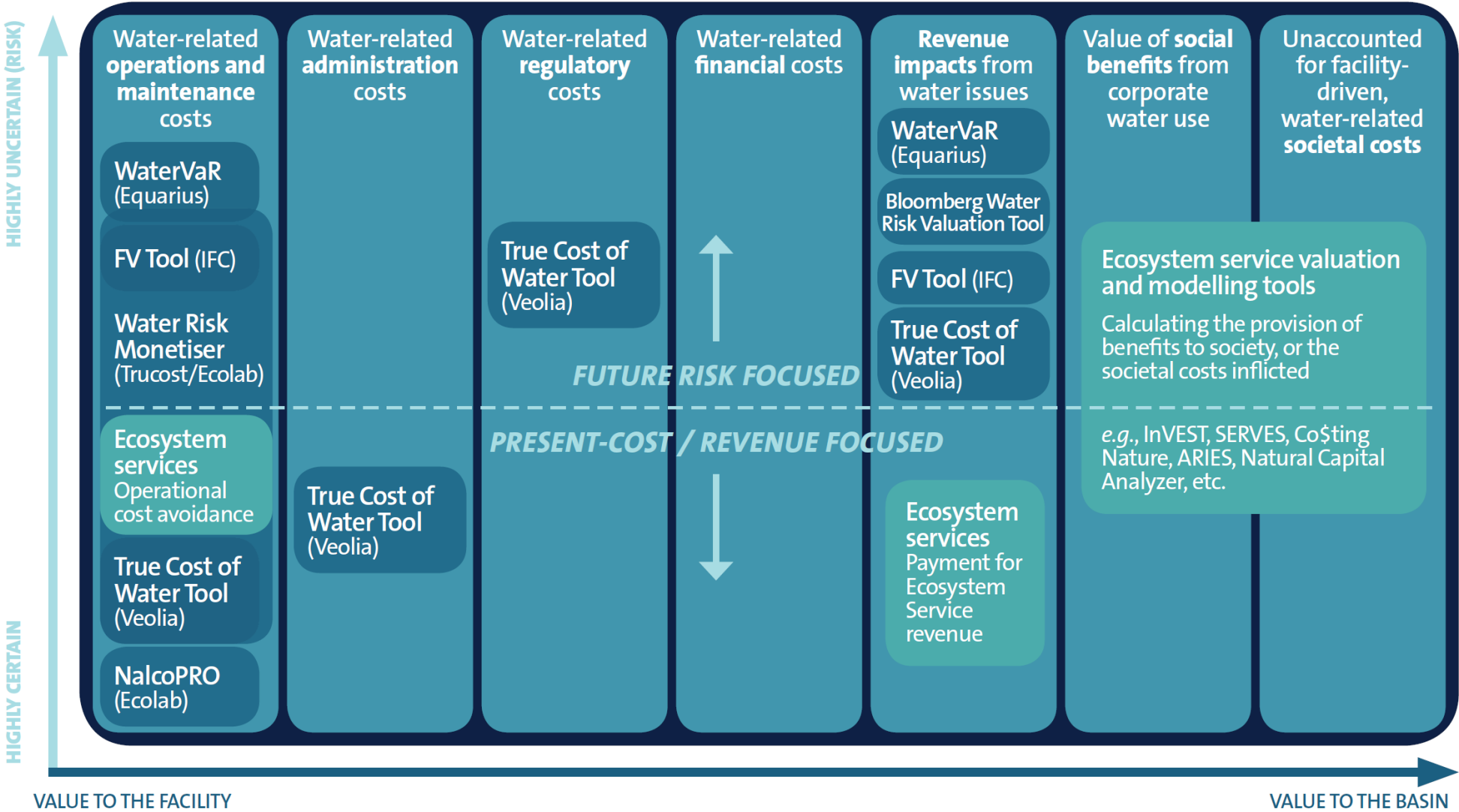




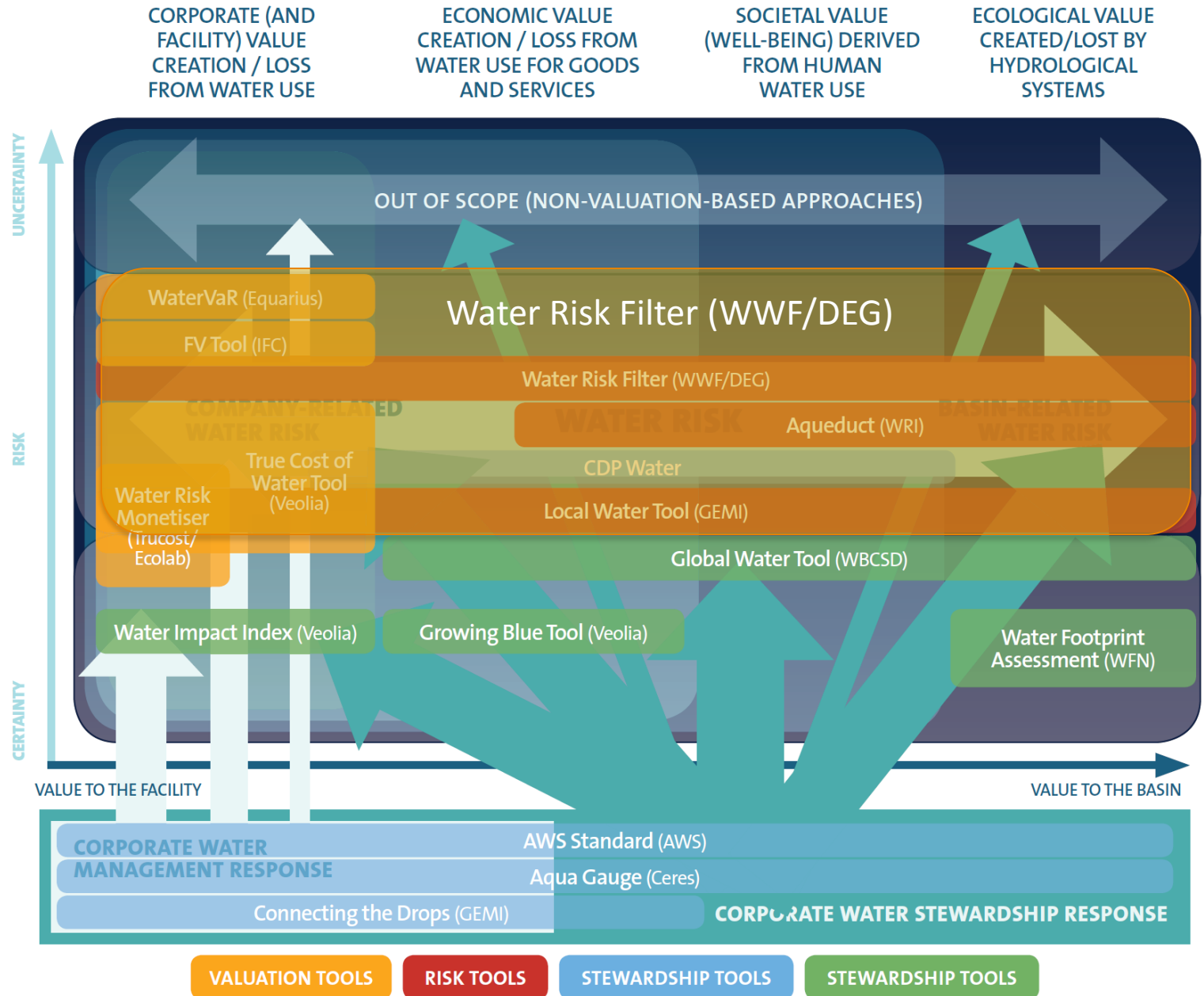
# The Value of Water as an Income Statement



# The landscape of valuation tools



# The landscape of (select) water tools

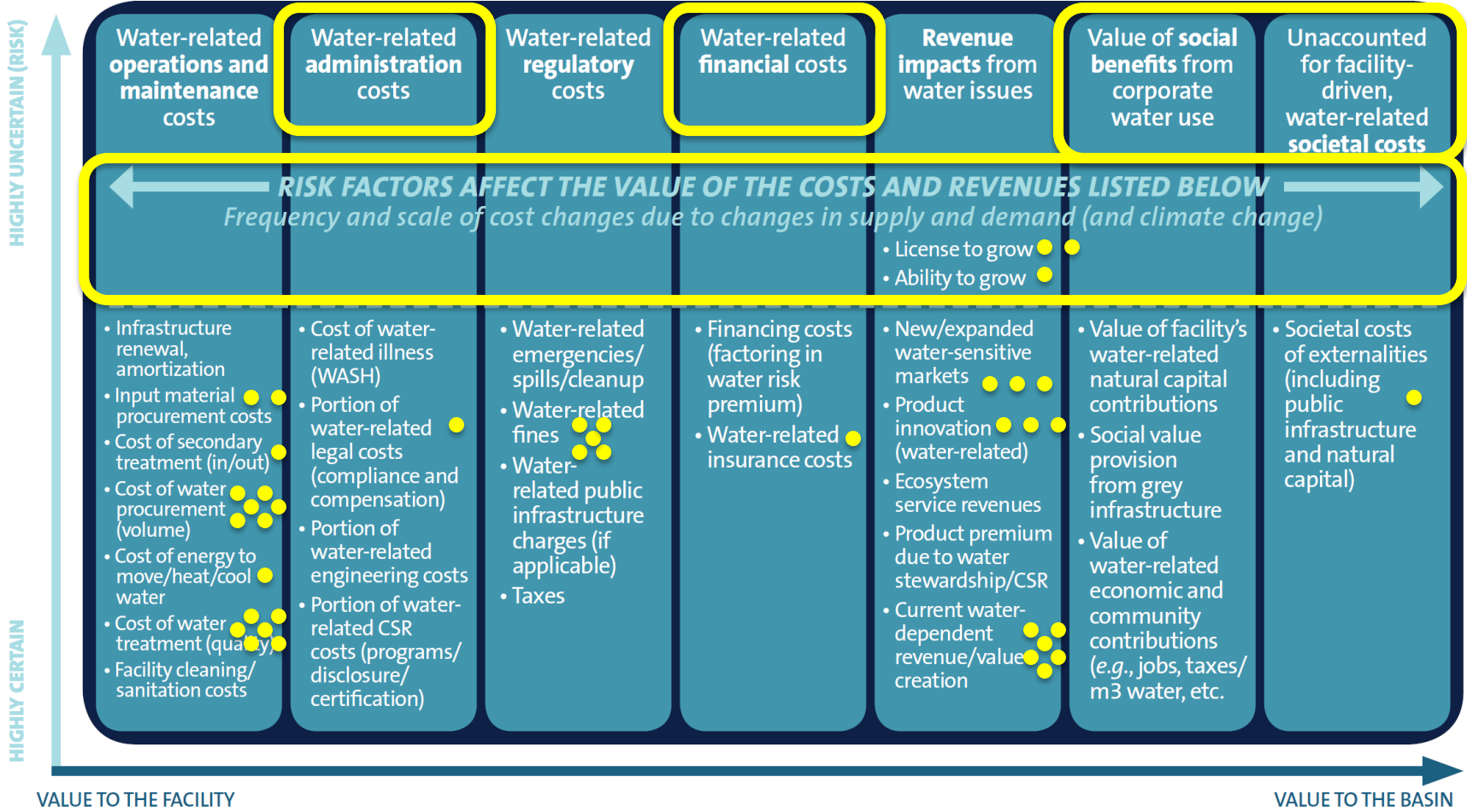


**INCOME STATEMENT ELEMENTS**

Lowering operations and maintenance cost	Lowering administrative (incl. legal) costs	Mitigate risk of regulatory costs	Water-related financial costs	Revenue impacts (Increase/decrease in sales to water-sensitive markets)	Revenue impacts (Water-related product innovation)	Revenue impacts (Ability to operate/future ability to grow)
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**CASE STUDY**

The Coca Cola Company, Kerala, India (2004)	
Cameron Bridge Distillery (2005)	
Mariani Packing Company Vacaville, CA (2006)	1
The Coca Cola Company, Ann Arbor, MI (2006)	
Duro Textiles Massachusetts (2007)	
Southern Company (2008)	1
Colgate Palmolive Morristown, NJ (2009)	1
Starbucks Coffee Company (2009)	1
Kraft Foods, Jacksonville, FL (2009)	1
Finlays Tea (2009)	1
Nestle, South Africa (2009)	1
Cisco Systems (2010)	1
Ford Motor Company, Chihuahua City (2010)	1



- Infrastructure renewal, amortization
- Input material procurement costs
- Cost of secondary treatment (in/out)
- Cost of water procurement (volume)
- Cost of energy to move/heat/cool water
- Cost of water treatment (quality)
- Facility cleaning/sanitation costs

- Cost of water-related illness (WASH)
- Portion of water-related legal costs (compliance and compensation)
- Portion of water-related engineering costs
- Portion of water-related CSR costs (programs/disclosure/certification)

- Water-related emergencies/spills/cleanup
- Water-related fines
- Water-related public infrastructure charges (if applicable)
- Taxes

- Financing costs (factoring in water risk premium)
- Water-related insurance costs

- New/expanded water-sensitive markets
- Product innovation (water-related)
- Ecosystem service revenues
- Product premium due to water stewardship/CSR
- Current water-dependent revenue/value creation

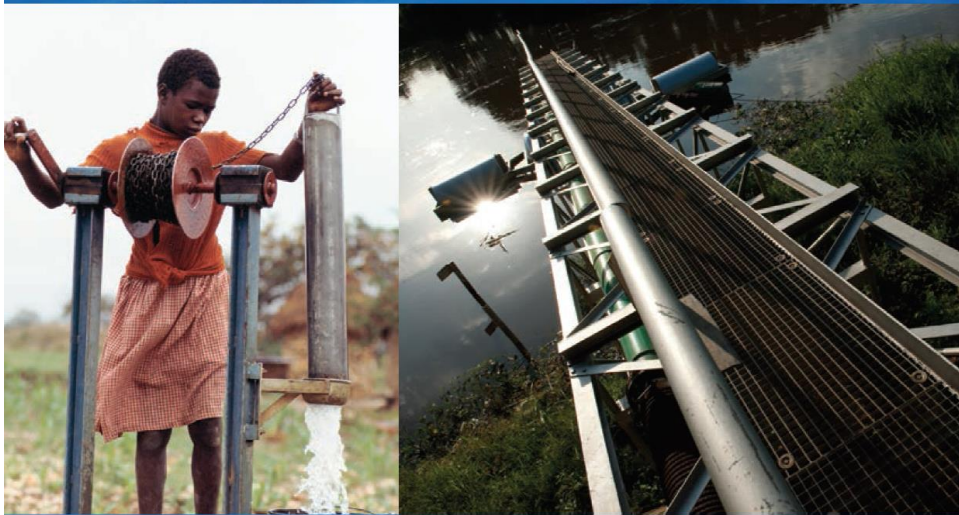
- Value of facility's water-related natural capital contributions
- Social value provision from grey infrastructure
- Value of water-related economic and community contributions (e.g., jobs, taxes/m3 water, etc.)

- Societal costs of externalities (including public infrastructure and natural capital)

# THE VALUE OF WATER:

*A framework for understanding water valuation, risk and stewardship*

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## Concluding thoughts:

- Water affects multiple aspects of shareholder value, from expenses & revenues to assets & liabilities
- Few (if any) companies are comprehensively considering how water affects their costs/income (i.e., value)
- Basin-related water value is largely an unexplored area, with current efforts largely focused on the role & opportunities related to natural capital
- Reflecting value in financial risk (e.g., via alpha & beta) will continue to develop & manifest
- Be careful of terminology and understand which tools serve valuation, risk assessment and stewardship.