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Water 2100: a synthesis of natural and societal domains to create actionable knowledge through AquaPedia and water diplomacy

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Abstract: Water issues are complex because they cross boundaries and involve various stakeholders with competing needs. The origin of many water issues is a dynamic consequence of competition, interconnections, and feedback among variables in the natural and societal domains. When viewed as a limited resource, water lends itself to destructive conflicts over its division; knowledge of water, however, can transform finite water quantity into a flexible resource. To generate such a transformative knowledge base for water, we need a framework to synthesize explicit (scientific) and tacit (contextual) water knowledge. Such a framework must build on scientific objectivity and be cognizant of contextual differences inherent to water issues. Water 2100 builds on this framework to develop an interactive, searchable, web-based repository of water case studies from across the world, called AquaPedia, that will facilitate the sharing of water knowledge and promote discussion among stakeholders to resolve wicked water problems through negotiated solutions.