

Understanding and Building on Water Diplomacy Annotated Bibliography

Books

Water Diplomacy: A negotiated approach to managing complex water networks. 2012. Islam, S. and L. Susskind. Routledge, New York.

This book offers an approach to managing water that incorporates interactions among natural, societal, and political forces that often are overlooked. At the heart of these conflicts are complex water networks. In managing them, science alone is insufficient, but so is policy-making that doesn't take science into account. Solutions will only emerge if a negotiated or diplomatic approach that blends science, policy, and politics is used to manage water networks. Additionally this book introduced the Water Diplomacy Framework, a proposed framework to facilitate production and use of actionable knowledge for the characterization and management of complex water networks.

Water Diplomacy in Action: Contingent Approaches to Managing Complex Water Problems. Forthcoming 2016. Islam, S. and K. Madani, Eds. . Anthem Press: New York.

“This volume synthesizes insights from theory and practice to address complex water problems through contingent and adaptive management using a water diplomacy framework (WDF). Today we face an incredibly complex array of interconnected water issues that cross multiple boundaries that share two key defining characteristics: competing values, interests and information to frame the problem; and differing views on how to resolve the problem that are related more to uncertainty and ambiguity of perception than accuracy of scientific information. The water diplomacy framework diagnoses water problems, identifies intervention points, and proposes sustainable solutions that are sensitive to diverse viewpoints and uncertainty as well as changing and competing needs. The WDF actively seeks value-creation opportunities by blending science, policy and politics through a contingent negotiated approach.” (Anthem Press description)

Journal Articles

[Water Diplomacy: A Negotiated Approach to Manage Complex Water Problems.](#) 2015. Islam, S. and A. C. Repella. Journal of Contemporary Water Research & Education 155, 1-10.

Complex water problems cross multiple boundaries: physical or jurisdictional boundaries are commonly considered, but competing values or differing views can create boundaries for understanding or characterizing water problems. Uncertainty and ambiguity in how to frame a problem or interpret scientific information contribute to complexity in these problems. This paper examines a historical look at water management and provides an

alternative perspective: that different types of problems require fundamentally different responses. It describes the Water Diplomacy Framework, as “an approach that diagnoses water problems, identifies interventions and proposed sustainable resolutions that incorporate diverse viewpoints and uncertainty as well as changing and competing demands.” Then, the article discusses bridging theory and practice for managing complexity and uncertainty across complex water problems.

[Water Diplomacy: Perspectives from a Group of Interdisciplinary Graduate Students.](#) 2015. Read, L. and M. Garcia. Journal of Contemporary Water Research & Education 155, 11-18.

The Water Diplomacy IGERT at Tufts University is a unique interdisciplinary PhD program that seeks to train graduate students to more effectively address complex water problems that transcend geographic and disciplinary boundaries. This paper shares the perspectives of students involved in this program and helps to inform future interdisciplinary education and research efforts.

[Water Diplomacy from a Duck’s Perspective: Wildlife as a Stakeholder in Water Management.](#) 2015. Van Rees, C. and J. M. Reed. Journal of Contemporary Water Research & Education 155, 28-42.

This paper takes a new approach to envisioning how ecological phenomena can be incorporated into water negotiations. It advocates for an approach that integrates ecological factors by exploring the mechanistic “interests” of ecological “surrogate stakeholders” rather than simplistic approaches that requires specific minimum flows or other naïve measures that may not accurately include the needs of ecosystems or address ecosystem services.

[Nature of Transboundary Water Conflicts: Issues of Complexity and the Enabling Conditions for Negotiated Cooperation.](#) Choudhury. E. and S. Islam. 2015. Journal of Contemporary Water Research & Education 155, 43-52.

Complexity in transboundary water allocation arises due to the “dynamic consequences of competition that arise from the interconnections and feedbacks among actors, processes and institutions operating in the knowledge and political communities.” This paper uses the Indus Basin allocation between India and Pakistan as an illustrative case for introducing and investigating three enabling conditions required to support a successful agreement on water allocation. Existence and recognition of interdependency among contending stakeholders: 1) *Existence and recognition of interdependency among contending stakeholders*; 2) *Focus on framing mutual interests via joint fact finding and creating mutual benefits*; 3) *Formation of a joint body to monitor agreements and address new problems as they emerge.*

[Water Diplomacy: Creating Value and Building Trust in Transboundary Water Negotiations.](#) 2012. Lawrence Susskind and Shafiqul Islam, Science & Diplomacy, Vol.

1, No. 3 (September 2012*).

Zero-sum framing in water negotiations can limit the success of multi-party negotiations for water allocation. Framing water as a flexible resource and focusing on building and enhancing trust can help parties reach agreements that meet the needs of their citizen. This article explores creative solutions for water sharing built into the 1994 Israel-Jordan Treaty of Peace. It describes different source of uncertainty and how they impact risk and opportunity in negotiation, as well as role of scientific and technical knowledge in designing creative and effective water allocation options.

Blog Posts

[**Water Diplomacy: Issues of Complexity Science and Negotiation Theory**](#). Shafiqul Islam, Elizabeth Cooper and Larry Susskind. Water Diplomacy Network Blog. August 27, 2015

This post introduces a blog post series that explores six thematic ideas from complexity science and negotiation theory that relate to Water Diplomacy concepts: interdependence and interconnectedness; uncertainty and feedback; emergence and complex adaptive systems, as well as stakeholder identification and participation; joint fact finding; and creative options.

[**Exploring the Interconnections and Interdependencies at Play in California's Water Problem**](#). Water Diplomacy Network Blog. Elizabeth Cooper. September 1, 2015

Blog piece that explores relevant concepts of interconnections and interdependencies influencing complex water problems as they are currently playing out in the ongoing California drought.

[**Coping with Uncertainty and Feedback in the Nile Basin**](#). Elizabeth Cooper, Shafiqul Islam and Larry Susskind on October 6, 2015.

This blog piece defines uncertainty and feedback in the context of complex systems. It provides descriptions of different sources of uncertainty and uses the context of water management in the Eastern Nile Basin to share examples of key concepts.

[**Emergence, Self-Organization and the Commons: Analyzing Complex Water Management Problems**](#). Elizabeth Cooper, Shafiqul Islam and Larry Susskind on December 3, 2015

This blog post defines and illustrates concepts related to emergence and self-organization in the context of complex water problems. It introduces concepts of 'the commons' from

both Grant Hardin's ("Tragedy of the Commons) and Elinor Ostrom's ("Governing the Commons") perspectives.

[**A New Future for the Himalayan Rivers. Water Diplomacy Network Blog.**](#) June 18, 2015. Shafiqul Islam.

This blog piece describes the concept of a Devising Seminar, a tool for developing shared understanding and producing creative options for addressing water problems.