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How sociohydrology can help address the global water crisis and meet the sustainable development goals

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Millions of people around the world are affected by water crises manifesting at different scales, such as increasing drought severity and flood risk, groundwater depletion, ecological degradation, poor sanitation, water pollution and its impact on human health. This global water crisis is increasingly interconnected and growing in complexity. Negative effects often result from a lack of understanding of wider economic and socio-cultural perspectives. More specifically, water crises can be deemed the intended or unintended consequences of long-term changes of social norms and values (or, more broadly, culture), ideology or political systems, which are not typically anticipated or accounted for in coping with water-related issues. Sociohydrology engages with these principles by examining the outcomes of water management and governance processes—successes and failures as well as the distribution of costs and benefits across social groups—themselves as subjects of scientific study. In this presentation, we show how feedback mechanisms between human and water systems can generate a wide range of phenomena (including crises) in different places around the world. Moreover, we argue that a generalized understanding of sociohydrological phenomena has an important role to play in informing policy processes while assisting communities, governments, civil society organizations and private actors to address the global water crisis and meet the Sustainable Development Goals, the societal grand challenge of our time.

