



European Geosciences Union General Assembly

Vienna | Austria | 7-12 April 2019

Call for Abstracts:

Emergent Patterns of Urban Water Resilience and Sustainability in a Polarizing World

Session No.: ITS6.6/HS11.34/BG6.7/NH1.28

Conveners: Elisabeth Krueger^{1,2}, Debraj Roy³, Amy Richmond⁴, Suresh Rao²

¹Helmholtz Centre for Environmental Research-UFZ, ²Purdue University, ³University of Amsterdam, ⁴US Military Academy

Climate change, the degradation of water resources and ecosystems, as well as continuing urbanization pose a growing risk to the resilience and sustainability of urban water services. Urban water security is a multi-faceted management challenge, comprising the access to water resources of adequate quantity and quality to meet urban demands, protection from flooding; sanitation; negotiating and managing competing user interests and ecological requirements; building and maintaining the necessary infrastructure for accessing, treating, storing and distributing the resource; and ensuring adequate services for all citizens, including the reliability, safety, and affordability of water services.

Heterogeneous patterns related to issues of urban water insecurity emerge and exacerbate extant patterns of social inequality, with the risk of traps (poverty, rigidity) and increasing social polarization. In the poverty trap, inability to marshal the resources for providing adequate services forces citizens to cope with and adapt to insufficient water services, often accompanied by threats to health and livelihoods of millions of urbanites around the world. Emergent patterns similar to those found in urban systems are known in ecology and complex systems more broadly.

In this session, we want to explore the opportunities for cross-disciplinary research, including perspectives from all scientific disciplines as well as from practice. We invite research abstracts proposing integrated assessments, system analysis concepts and approaches to dealing with the presented, multi-faceted resilience and inequality challenge based both on empirical (case studies) and theoretical (modeling) analyses. Data-based assessments and new methodological approaches for use in comparative studies and transferable approaches are welcome. We also welcome abstracts focusing on similarities between engineered and natural systems as a starting point for managing urban sustainability.

Abstract Submission Deadline: 10 January, 2019, 13:00 CET

Additional information: <http://www.egu2019.eu/>