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## **Coevolution and Prediction of Coupled Human-Water Systems: A Synthesis of Change in Hydrology and Society**

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There has been increasing recognition that the global water crisis is due to lack of understanding of wider economic and socio-cultural perspectives, resulted from the intended and/or unintended consequences of co-evolution of coupled human-water systems. In light of such recognition, Panta Rhei Initiative (2013-2022) was proposed to focus on changes in both hydrology and society. Approaching end of this decade, it is time to synthesize the knowledge gained in our understanding of coevolution and prediction of coupled human-water systems. The synthesis will produce a book which includes five parts: (I) Motivation and Overview, (II) Theoretical Foundations and Methodological Approaches, (III) Synthesis of Work Done and Understanding Gained in Specific Application Areas, (IV) Panta Rhei Case Studies, (V) Grand Synthesis and Recommendations. This abstract will present a brief introduction of current progress of Panta Rhei Book.