



## **Open Challenges Facing Water Systems Analysis for Climate Adaptation**

Frank Ward  
(fward@nmsu.edu)

Climate change, population growth, and weakly developed water management institutions in many of the world's dry communities have raised the importance of designing water systems and institutions that adapt to water supply fluctuations while respecting cultural sensitivities. Water resource systems analysis consisting of integrated models of climate water systems analysis have a part to play. However, several unsolved challenges that limit the utility of water resource systems analysis to contribute to policy reforms hinder the design of measures to adapt to climate stress while sustaining economic and ecological systems. This paper describes several open challenges for which progress is needed to make headway on today's climate adaptation problems of today. Making headway on these challenges will be required to secure sustainable economies and ecosystems that adapt to climate stress and mounting population pressures worldwide.