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Transboundary human-water systems

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Transboundary rivers flow across political boundaries, requiring riparian countries to share a complex network of environmental, economic, political, social and security interdependencies. Transboundary river fluctuates in both space and time, and have multiple and conflicting demands on its uses, which have often resulted in tensions between riparian countries. Conflict and cooperation is thus an emergent phenomena of this co-evolved human-water systems. The choice of cooperative or conflictive behaviours from riparian countries is not only related to the nature of the water issue itself, but it attains more to the political, cultural, institutional, and socioeconomic conditions of the upstream and downstream countries involved. Understanding of the feedback mechanism is thus needed to be able to develop the understanding of how different actors cake to cooperation of conflict and knowledge to manage it effectively. As part of Panta Rhei Synthesis book, this study provides case study of transboundary human-water system by reviewing knowledge of conflict and cooperation dynamic from various disciplines, existing models and frameworks developed.