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Approaching Moisture Recycling Governance

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The spatial and temporal dynamics of water resources are a continuous challenge for effective and sustainable national and international governance. Despite the surface watershed being the typical unit of water management, recent advances in hydrology have revealed 'atmospheric watersheds' – otherwise known as precipitationsheds. Also, recent research has demonstrated that water flowing within a precipitationshed may be modified by land-use change in one location, while the effect of this modification could be felt in a different province, nation, or continent. Notwithstanding these insights, the major legal and institutional implications of modifying moisture recycling have remained unexplored. In this presentation, we examine potential approaches to moisture recycling governance. We first identify a set of international study regions, and then develop a typology of moisture recycling relationships within these regions ranging from bilateral moisture exchange to more complex networks. This enables us to classify different types of legal and institutional governance principles. Likewise, we relate the moisture recycling types to existing land and water governance frameworks and management practices. The complexity of moisture recycling means institutional fit will be difficult to generalize for all moisture recycling relationships, but our typology allows the identification of characteristics that make effective governance of these normally ignored water flows more tenable.