Minimizing “geopolitically ungauged” catchment area of transboundary river basins to support disaster risk reduction

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Abstract Water managers across the globe comprehend the vital importance of adequate hydrological information to support water policy creation and decision-making. In addition to the spatial and temporal resolution of physical observations, data distribution (where data are available for use) and timing (when data are available for use) may determine the utility and benefit of observed data, e.g. in forecasting extreme hydrological events. Within transboundary river basins, it is too often the case that flows of hydrological information stall or halt at national boundaries. The result is that decision-making relying on use of real-time hydrological observation is often compromised by partial, untimely, or uncertain flows of information from “geopolitically ungauged” catchment areas. For this reason, much potential for improving data-driven decision making lies within opportunities to fully utilize existing data networks. Regional platforms for sharing hydro-meteorological data may be a potential pathway to improve management capabilities and a point of coalescence for sharing the benefits of regional cooperation.

Key words transboundary water management; hydro-meteorological data; geopolitically ungauged catchment area; hydrological forecasting; disaster risk reduction