

Rural Water Supply Services in India: Developing a Composite Summary Score

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Abstract : Sustainable water supply is among the basic needs for human development, especially in the rural areas of the developing nations where safe water supply and basic sanitation infrastructure is direly needed. In light of the above, we propose a simple methodology to develop a composite water sustainability index (WSI) to assess the collective performance of the existing rural water supply services (RWSS) in India over time. The WSI will be computed by summarizing the details of all the different varieties of water supply schemes presently available in India comprising of 40 liters per capita per day (lpcd), 55 lpcd, and piped water supply (PWS) per household. The WSI will be computed annually, between 2010 and 2016, to elucidate changes in holistic RWSS performances. Results will be integrated within a robust geospatial framework to identify the 'hotspots' (states/districts) which have persistent issues over adequate RWSS coverage and warrant spatially-optimized policy reforms in future to address sustainable human development. Dataset will be obtained from the National Rural Drinking Water Program (NRDWP), operating under the aegis of the Ministry of Drinking Water and Sanitation (MoDWS), at state/district/block levels to offer the authorities a cross-sectional view of RWSS at different levels of administrative hierarchy. Due to simplistic design, complemented by spatio-temporal cartograms, similar approaches can also be adopted in other parts of the world where RWSS need a thorough appraisal.

Keywords : rural water supply services, piped water supply, sustainability, composite index, spatial, drinking water

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