



## **Assessing Ground Water Quality for the Suitability of Irrigation in Dindigul District, Tamil Nadu, India**

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**Abstract:** An attempt has been made in this paper to assess groundwater quality for irrigation based on various indices, such as sodium absorption ratio (SAR), permeability index (PI), Kelly's ratio (KR), Na%, magnesium ratio (MR) and soluble sodium percentage (SSP) in Dindigul district of Tamil Nadu. The study underwent based on secondary data. Groundwater chemistry in the study area is mixed type and has been validated using Piper, Durov and Gibbs plot. The United States Salinity Laboratory (USSL) plot indicates high salinity and low sodium hazard (C3-S1). Except Kelly's Ratio all other indices values in the groundwater samples are marginally suitable for irrigation purposes. So care should be taken before water gets contamination.

**Keywords:** Gibbs, Irrigation water quality, PI, Piper diagram, USSL

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