Home



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Study Relating to the Spatial Distribution of Ground Water Quality for Different Elements using Legacy Data of RWS&S, Andhra Pradesh, India

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Abstract. The state of Andhra Pradesh, India falls in water stress⁴ area. The primary objective of this study is to examine the spatial distribution of different chemical elements with respect to its contamination level. About 70 % of drinking water needs in rural areas and 40 % drinking water needs in urban areas are met from groundwater resources. In the last decades, rapid population growth coupled with agricultural expansion due to subsidized power to agriculture has significantly increased demand on groundwater resources. Combined to this, the effect of Global warming has put stress on ground water which is resulting in declines in water levels and deterioration of ground water quality. This may be evidenced by the fact that the phreatic aquifer which was in use two decades ago, is existing no more now in some of the parts of the study area and the water is being drawn from deeper aquifers beyond phreatic aquifers. The study has been carried out for which one or more elements are contaminated and to study its spatial distribution.

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