

ASSESSING GROUNDWATER CONDITIONS USING GIS TECHNIQUES, A CASE STUDY OF ALWAR DISTRICT, RAJASTHAN

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Abstract:

Groundwater is the most important natural resource because it provides drinking water, supports irrigation and industry, sustains the flow of streams and rivers, and maintains riparian and wetland ecosystems. The future sustainability of groundwater resources is at risk because of groundwater systems typically respond slowly to human actions. Abstraction from groundwater in Rajasthan is dynamic in nature as it grows rapidly with the expansion of irrigation activities, industrialization, and urbanization. One of these areas is Alwar District in which the groundwater is exploited in many localities. The resource can be optimally used and sustained only when quantity and quality of groundwater is assessed. This present study has been carried out to understand the distribution pattern of groundwater in Alwar District on the basis of groundwater level data of different observation wells of Alwar District from 2007 to 2011 which is obtained from Groundwater Information System, A portal of NIC. By the help of this data interpolation analysis has been carried out to evaluate the current condition and changing pattern of groundwater level of the whole district. After that we can determine the regions who are currently facing groundwater problems and what are the areas who may be face this problem in near future.

