

GROUNDWATER QUALITY STUDIES IN PARTS OF DELHI, INDIA USING GEOSPATIAL TECHNOLOGY

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Abstract

The information derived from the different hydrogeomorphological layers in parts of national capital Delhi (India) shows that the intermountain valley fill and alluvial plains are in excellent condition for groundwater extraction, however the water quality in the intermountain valley fill deposits is not good hence care should be taken at the time of choosing the well site. The Aeolian sandy plain intermountain basin and buried pediment provide a good opportunity for groundwater prospect in the area and among all these intermountain basins and buried pediment units have limited size, area and therefore these two units have only limited possible groundwater development. The other units show poor to moderate opportunity for groundwater development in some blocks, but places near to fault planes and joints in the hills of Delhi and the denudated hills in Mewat and Gurgaon districts show moderate chances of groundwater prospects. The GIS technology is very useful for the preparation of Geological, Hydrogeomorphological and groundwater quality prospecting area mapping and management plan on a scientific basis. The information generated on prospects of Geology, Geomorphology and Groundwater quality in the map will be helpful for the planners and decision makers and also feasible for groundwater quality, development and management.

Keywords: Remote sensing, GIS, Hydrogeomorphology, Groundwater Quality, Environment and Management.