

## ASSESSMENT OF EXTENT AND VARIABILITY OF NITRATE CONTAMINATION IN SHALLOW AND DEEP AQUIFERS OF AN URBAN AREA, INDIA

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### Abstract

In urban areas, the nitrate contamination is rampant and much attention has not been drawn towards this anthropogenic pollution. To assess the hydrochemical composition and status of nitrate ( $\text{NO}_3^-$ ) in groundwater, a total of 240 groundwater samples from shallow and deep aquifers were collected during pre- and post-monsoon seasons from Nagpur city. The study revealed that groundwater was found unsuitable for drinking purposes due to high  $\text{NO}_3^-$  concentration. Seasonal variation in  $\text{NO}_3^-$  concentration was observed in both aquifers. The results of this study are useful to highlight one of the most important environmental problems, namely the degradation of the water quality.

*Keywords:* Groundwater quality; nitrate pollution; anthropogenic input; Nagpur city.