

Comparative Physiochemical Appraisal of Groundwater and Drinking Water Quality Assessment in Hisar District

Surender Singh Malik¹ and Dr. Vishnu Dev Gupta²

Research Scholar¹

Research Guide²

Shri J.J.T University, Jhunjhunu, Rajasthan, India

ssmalikhry@gmail.com

Abstract: *Having access to clean drinking water is crucial, especially in rural areas where groundwater is the main water supply. This study has assessed the physicochemical quality of the groundwater in hisar District, Haryana, India. The following physicochemical parameters were determined on 30 samples that were gathered from thirty different locations: pH, total dissolved solids, total hardness, alkalinity, electrical conductivity, calcium, magnesium, sodium, potassium, nitrate, fluoride, and sulfate. These findings were compared to the standards set by the Indian Council of Medical Research, the Bureau of Indian Standards, the World Health Organization, and other regulatory authorities. The majority of the required parameters were found to be within allowable bounds; but, total hardness, calcium, and magnesium were shown to be higher than advised in several locations. According to the Water Quality Index, groundwater in certain regions is becoming unsafe for human consumption due to its diminishing quality. This study emphasizes the need of routine monitoring in addition to providing vital information to support mitigation efforts and guarantee the supply of sustainable and clean water resources for the residents of the hisar district in the state of Haryana.*

Keywords: Physiochemical, ground water, water quality, hisar, water quality index