GROUNDWATER AND CONTAMINATION ACROSS DISTRICTS

Water quality monitoring

Abstract

**This study focuses on analyzing groundwater characteristics across various regions to understand its availability and quality. Using a comprehensive dataset, the analysis explores key parameters such as groundwater depth, pH, electrical conductivity (EC), total dissolved solids (TDS), and arsenic concentration. These parameters are critical for assessing water resource sustainability and its suitability for agricultural, industrial, and domestic use. The dataset encompasses data from diverse geographical regions, capturing the spatial variability influenced by climatic, geological, and anthropogenic factors.**

**ARSENIC CONTAMINATION**

CONCLUSION

**Several districts exhibited concerning levels of contaminants such as arsenic, nitrate, and salinity, which pose significant health risks for local communities, particularly in drinking water sources. Areas with high arsenic contamination are especially alarming, as they surpass safety limits, impacting public health.**

CONTAMINATION

**GROUNDWATER LEVEL**

The results show significant water contamination in several districts, with high levels of arsenic, nitrate, and salinity, particularly in shallow groundwater sources. Groundwater levels vary, and pH levels are generally safe. However, areas with high salinity and arsenic pose serious risks to public health and water usability, requiring urgent intervention and monitoring.