

GROUNDWATER POLLUTION IN SHERI NALA BASIN, SANGLI DISTRICT, MAHARASHTRA, INDIA AND ITS IMPACT ON HEALTH- A CASE STUDY.

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Abstract

The area covered by the present investigation is a basin (lat.16° 50' 05" N to 16° 54' 45" N and long.74° 33' 20" E to 74° 38' 30" E) included in SOI toposheet no. 47 L/9. In total, 50 bore-well and 25 dug-well samples were collected and analyzed to understand the impact of groundwater pollution on the health of the people in the area. These samples were collected from five sub-basins of Sheri Nala. They are viz: Madhavnagar, Kupwad, Budhgaon, Sangli City and Padmale. For the present investigation, TH, TDS, Cl values and their impact on health of the people in the area has been studied. The observed values were compared with the standards. It has been observed that the values are higher in both pre-monsoon and post- monsoon periods. The higher values are mainly due to the industrial pollution in Madhavnagar and Kupwad sub-basins. Whereas, the values are higher in Budhgaon, Sangli City and Padmale sub-basins is due to improper maintenance of sewerage and septic tanks. To understand the effect of toxicity on the health of the public, 70 representative household samples were collected. It has been observed that 9% households are suffering from cholera, 13% from jaundice, 64% from gastroenteritis and 14% from typhoid diseases.

Keywords: Sheri nala, Geochemical analysis, Bore well, Dug well, Water borne diseases