

Late Quaternary productivity variations in the equatorial Indian Ocean close to Eastern Arabian Sea

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This paper presents the results of a study of 19 samples of water collected from subsurface sources (ie. tube wells & dug-wells) in order to determine the ground water quality deterioration in parts of Chandauli district due to intensive agricultural practices. The water quality parameters viz. pH, TDS, specific electrical conductance, cations like Ca^{2+} , Mg^{2+} , Na^+ , K^+ & anions like Cl^- , $(\text{CO}_3)_2^-$, $(\text{HCO}_3)^-$, $(\text{SO}_4)^-$ & $(\text{NO}_3)^-$ were determined. Special attention was given to nitrate (NO_3^-), as nitrogen fertilizers constitute the major share of all the fertilizers used in this region.

The findings revealed that the content in the majority of sampling sites were below the WHO permissible limit for the drinking water. Although on an average nitrate data points that it is much below the permissible limit (45 ppm) which is a good sign. This means that the water is not contaminated by the extensive use of the nitrogen fertilizers. However there are two tube wells "Baburi" & "Chahniya", where the nitrate content has crossed the permissible limit. It may be due to some local agency polluting the ground water. This local agency may be sewage effluents from the thick population of the two towns which have a bad sewer system as was evident by the domestic wastes, animals & agricultural wastes lying uncontrolled in the towns.

Meteorology (Poster)