

DRINKING WATER QUALITY OF SOME SELECTED SCHOOL WELLS IN THE MUNICIPAL COUNCIL AREA OF BATTICALOA

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ABSTRACT

Analysis of physical, biological and chemical parameters were carried out to identify the levels of pollution in the drinking water of eight selected¹ schools in the Municipal Council area of Batticaloa. The results were then compared with WHO standards² thus providing information regarding drinking water quality in the sites investigated. A high coliform count was observed in all water samples obtained from the wells, indicating the unsuitability of water in unpurified states for drinking purposes. The reason for this could be attributed to neutral pH of water from all samples that could have provided ideal conditions for bacterial growth. The Fe²⁺ concentrations were relatively low in all samples and did not reach harmful levels. However, the low F concentrations found in all the samples analyzed are seen to be harmful to dental health. In the samples analyzed: high nitrate levels of 25 mg/l was found at St. Michaels' College and, high phosphate levels of 5 mg/l was observed at Mahajana College. St. Michaels' College and Vincent High School had very hard water (above 300 ppm).

Key Words: Coliform, dental health, drinking water, Nitrate ions, Phosphate ions