

ANALYSIS OF DRINKING WATER IN EDUCATIONAL INSTITUTIONS OF JAFFNA PENINSULA FOR BACTERIAL CONTAMINATION DURING DRY AND WET SEASONS

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ABSTRACT

Improving access to safe drinking water can result in tangible benefits to health. Ground water is an important natural resource in the Jaffna peninsula. The population of the Jaffna peninsula is entirely dependent on the peninsula's ground water resources to meet all its requirements of water. The objective of this research was to assess the quality of the drinking water in six educational institutions of Jaffna peninsula. For this study, water samples from five schools and different locations of University of Jaffna were collected during dry and wet seasons. Water samples obtained from dug wells, tube wells and water supplies of these locations were analyzed for aerobic, anaerobic and total coliform bacterial contamination. Aerobic bacterial count revealed that most of the samples crossed the recommended value (100 colonies/ml). Total coliform contamination was also identified. Anaerobic bacteria were not found in the samples during both seasons. Dug well water samples contained higher contamination than the water samples from other sources. A significant increase in the aerobic and coliform bacterial contamination was found with rain fall.