

EVALUATION OF GROUND WATER POLLUTION IN THE KALUTHAWALAI AREA OF THE BATTICALOA DISTRICT

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ABSTRACT

Five representative wells were selected to study the impact of agriculture practices on ground water quality in Kaluthavalai area of the Batticaloa district in Sri Lanka. Sampling has been done at monthly intervals. Ground water samples from four representative sampling stations from agricultural areas and one sampling station from a non-agricultural area at Kaluthavalai in the Batticaloa district were analyzed for N, P, K and heavy metals to determine the ground water pollution. The results from this study revealed that the pollution of ground water due to the application of N, P, and K fertilizers has reached to the point of serious concern. Therefore, preventive measures must be imposed to protect regional natural water resources and drinking water quality. The results also revealed that the ground water in Kaluthavalai agricultural area has high concentration of zinc and lead and non-agricultural area has high concentration of iron and lead.

Key words : fertilizer, fungicides, ground water, heavy metals, pesticides, pollution, trace elements