

IRON DISTRIBUTION OF DRINKING WATER IN AMPARA DISTRICT

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ABSTRACT

Groundwater resources support many urban, rural and remote communities around Sri Lanka. Aquifers are a source of water for drinking, irrigation, stock supply, bottling and many other uses. As industrial and agricultural development of Sri Lanka increases, the demand for water also steadily grows. In some parts of the Sri Lanka, the current rate of groundwater extraction is depleting the resource faster than it is being recharged.

Groundwater contains a variety of chemical constituents at different concentrations. The greater part of the soluble constituents in groundwater comes from soluble minerals in soils and sedimentary rocks. A much smaller part has its origin in the atmosphere and surface water bodies.

In this study was carried out regarding the iron concentration in drinking water. The study was focused on two selected areas in Ampara district of Sri Lanka. The flow direction was roughly assumed by investigating hydrogeological features then 50 water samples were collected from wells, river, tube wells, paddy field, lack and holes in selected two places for the water quality analysis.

The collected water samples were tested for the pH and iron. The iron concentration distribution was drowned by using ARCGIS 9.3 and graphical quality variation was critically commented by using MINITAB 14.0. The iron concentration is decreasing from central part of village to sounding area that is land to rive and paddy field areas.