

A pristine environment and water quality in perspective : Maliau Basin, Borneo's mysterious world.

ABSTRACT

The chemical characteristics of the surface water of Eucalyptus River, in Maliau Basin, were studied based on its major ion chemistry and its suitability for drinking, domestic use and irrigation. Water samples from the river were collected and analysed for pH, temperature, dissolved oxygen (DO), electrical conductivity (EC), total dissolved solids (TDS), turbidity, Cl, SO₄, Ca, Mg, Na and K. Besides major elements, Cu, Zn, Ni, Co, Fe, Mn, Cr, Bi, Cd, Ba, Pb, As, Al, V, Se, Ag, Sr and Li were also determined in this study. The results show that the river water of the area reflects natural factors and is regarded as fresh water and suitable for drinking and domestic use. The calculated values of sodium adsorption ratio (SAR), Mg hazard and salinity hazard indicate that the river water is of high quality and suitable for agricultural and irrigation purposes. This study contributes baseline data for a pristine, forested environment for future reference.

Keyword: Maliau Basin; Water chemistry; Water quality.