ANALYSIS OF LEAD AND CADMIUM CONCENTRATIONS ON SEDIMENTS AND WATER OF YLANG YLANG RIVER IN DASMARIÑAS CITY AS AN INPUT FOR LOCAL GOVERNMENT UNIT ENVIRONMENTAL PROTECTION PROGRAM

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ABSTRACT

The concentration of the lead (Pb) and cadmium (Cd) in the water and sediments of Ylang Ylang River in Dasmariñas City were evaluated by comparison with the set standard by Environmental Management Bureau-Department of Environment and Natural Resources for water, and US Environmental Protection Agency, Region 5 for sediments.

The water and sediments samples were collected from the eight sampling stations and substations, starting from downstream to upstream area. Both water and sediments samples were prepared and analyzed in the laboratory for Pb and Cd concentration using Atomic Absorption Spectrometer.

The results showed concentration of Cd both in the water and sediments of the river are within the standard and guidelines. Station 1 and Station 7b show concentration of Pb in water that exceeds set standard while all stations are rated as heavily polluted in sediments as per proposed guidelines.

Both Station 1 and 7b were associated to the existing land use near the river that directed the non-point source of contamination of Pb from discharge coming from domestic and industrial source. Suggested action plan was included in the study to address the threat and prevent further contamination that would manage to attain sustainability of the river.

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