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Pingal Oya

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**EVALUATION OF WATER QUALITY OF
PINGA-OYA
WITH EMPHASIS TO HEAVY METAL POLLUTION**

A PROJECT REPORT PRESENTED

BY

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ABSTRACT

The Pinga-Oya is one of the main tributaries of Polgolla reservoir, which meets Mahaweli river at Katugastota. Many industries, dwelling houses, restaurants and shops are found along the reservation and the vicinity of the Pinga-Oya that cause pollution of the stream. Waters of Pinga-Oya are used for human consumption, (bathing, washing etc), industrial purposes and agricultural purposes.

Ascertaining the heavy metal pollution levels of Pinga-Oya being the main objective of the study, concentrations of Pb, Zn and Cd in the water and sediments were measured in the stream. For this purpose, eight (8) sampling points were selected along the stream from Akurana to Katugastota.

The concentrations of the selected heavy metals (Pb, Zn and Cd) in the water and sediments varied irregularly along the stream. Also the concentration levels of the above elements in water samples and sediment samples didn't show a correlation.

The concentrations of Pb, Zn and Cd in the water samples and sediment samples varied; (0.07 ppm - 0.455 ppm), (0.107 ppm - 0.36 ppm) and (0.01 ppm - 0.08 ppm) respectively.

The Pb concentrations in water samples exceeded the general standards for discharge of effluents into inland surface waters declared by CEA while Zn and Cd concentrations were below the said standard. The Pb concentration in the most of sediment samples exceeded the above standards while Zn and Cd were below.