

**SEDIMENT YIELD OF TWO AGRICULTURAL SUBWATERSHEDS OF  
LABAC RIVER IN CAVITE**

Undergraduate Thesis  
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## ABSTRACT

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The study was conducted from July 2014 to February 2015 to estimate the sediment yield of two agricultural subwatersheds of Labac River in Cavite. Specifically, it aimed to: establish a sediment rating curve for the selected subwatersheds of Labac River; assess the water quality parameters, namely: temperature, turbidity, electrical conductivity, total dissolved solids, total suspended solids and pH; and determine the relationship between the sediment concentration and the water quality parameters.

A station for each watershed was chosen for the monitoring of discharge and water quality parameters. Total suspended solids were used as the representation of the sediment concentration in the water. Sediment concentration was converted to sediment discharge using the discharge of the river and was graphed using MS Excel to estimate the sediment yield of the watersheds.

Watershed A, located at Brgy. Alulod, Indang, Cavite, has an area of 57 ha used mainly for agroforestry and had an estimated sediment yield of 3.8 t/ha/mo. Watershed B, located at Brgy. Palangue Central, Naic, Cavite, has an area of 74 ha mainly used for rice farming. Its sediment yield was 4.44 t/ha/mo. It was observed that an agroforestry based watershed is less easily eroded as compared to a rice farming watershed. This was due to the soil type, land cover and land use management. A higher slope is seen to be related to the intensity of erosion of the banks and bottom of the river. It was also found out that turbidity and pH are related to the sediment concentration while total dissolved solids and electrical conductivity are moderately associated depending on the land use of the watershed.