



## **Integrated Universal Soil Loss Equation (USLE) and Geographical Information System (GIS) for Soil Erosion Measurement in basin of Asap river, Central Vietnam**

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The study was conducted in Asap river basin, A Luoi district, Thua Thien Hue Province, Vietnam, using the Universal Soil Loss Equation (USLE) and Geographical Information System (GIS) to determine the soil erosion status. The results show strong effect of the heavy rainfall and high slope on the erosion level in the research area. More than 40% of land area lost over 10 tons/ha/year. The natural forest land lost the most by averagely is 38.4 tons/ha/year, while the agricultural land showed less with 2.79 tons for paddy rice land use type and 7.58 tons for upland crops yearly. Comparison between some places of Vietnam and the Southeast Asia showed that soil erosion in watersheds of Asap is more serious.

We have been proposed a recommendation on changing the classification system of land use type in Vietnam for more accurate in soil erosion measurement.

Keywords: Land use type, Soil erosion, USLE, Central Vietnam.