BONIFASIUS ANGGIT PP. Mapping of Erosion Hazard Level in Tedunan Sub Watershed Kulon Progo Regency. Under the guidance of Lanjar Sudarto and Partoyo

ABSTRACT

Human activities in using soil resources excessively and not accompanied by conservation measures, will cause erosion in a higher rate than the allowable limit. It occured in various places as well as in watershed (DAS), like in Tedunan Sub Watershed. The purpose of this study are to predict the erosion rate, to know level of erosion, and to map the areas according to erosion hazard level. This research was conducted in Tedunan Sub Watershed Kulon Progo Regency in August 2014 till November 2014. The method used in this research was USLE (*Universal Soil Loss Equation).* Sample points were determined purposively based on land unit map obtained from overlaying maps of slope and land use. Parameters in this study were monthly rainfall data for 1 year, soil texture (4 fractions are silt, clay, sand, and fine sand), soil structure, soil permeability, soil organic C, length and slope, conservation measures, cover crops, and soil depth. The results showed that in this area the erosion hazard level are included in 3 levels, which are low, moderate and very heavy. The area with low erosion hazard level was 25.518 ha (5,53%), the area of moderate erosion hazard level was 19,654 ha (4,26%) , and the area of very heavy erosion hazard level was 416,156 ha (90,21%).

Keywords: Erosion, USLE, Erosion Hazard Level, Tedunan Sub Watershed, Kulon Progo