Study on Soil Erosion Hazard Level in Tlogo Village, Garung District, Wonosobo Regency

By: Andri Pin Arso Saputro

Supervised by: Partoyo and Yanisworo Wijayaratih

ABSTRACT

Tlogo Village is an area that has a high potential for erosion because of the climate, soil conditions, and conservation are not yet at optimal condition. The village of Tlogo is located at intermediate altitude 1,300 metres above sea level (MASL) at the Wonosobo Regency area, with a gentle of slope and up to a very steep slope of more than 40%. This research aimed to determining the rate of soil erosion with USLE method and determine the soil erosion hazardous level (TBE) based on the rate soil erosion at Tlogo village, Garung sub-district, Wonosobo district. There are 13 location points which are determined based on the land system map created with overlay namely soil type map, slope map and land use map with each scale of 1: 25,000 using software ArcGis 10.2. This research data includes monthly rainfall data for 7 last years, soil erodibility data (K), crop management data (C) and data conservation action planning (P). The USLE formula was used to determine the rate value soil erosion while the value of the rate of soil erosion is to determine the level of danger soil erosion (TBE). The results showed that the highest soil erosion rate was 87,50 tonnes / ha / year covering an area of 13,02 Ha, while the lowest erosion rate was 0,002 tonnes / ha / year covering an area of 83,41 Ha. Tlogo village has a soil erosion hazard level with three categories namely very light covering an area of 232,80 Ha, light covering an area of 185,48 Ha and moderate covering an area of 13,02 Ha.

.

Keywords: erosion, USLE, erosion hazard level, Tlogo