

Effect of Slope Steepness with Toposequent on Erosion Factor: A Study Case of Cikeruh Catchment Area, West Java, Indonesia

Authors : Shantosa Yudha Siswanto, Julianto Arief Ismail, Rachmat Harryanto

Abstract : The research was conducted with the aim to know the effect of slope steepness on organic carbon and soil erodibility as erosion factor. This research was conducted from September to December 2011 in the Raharja and Cinanjung Village, Tanjungsari, Sumedang District, West Java, Indonesia. The study was carried out using physiographic free survey method, which is a survey based on land physiographic appearance. Soil sampling was carried out into transect on the similarity slope without calculating the point of observation range. Soil sampling was carried onto three classes of slope as follows: 8-15%, 15-25% and 25-40%. Each was consisted of three slope position i.e. top slope, middle slope and down slope and four samples of soil were taken from each of them, hence it resulted in 36 points of observation. The results of this study indicate that gradient of slope have some significant contribution in every sample. Middle slope with gradient 26-40% has the highest potential erosion occurrence. It has organic C content (0.84%) and the highest erodibility value (0.1092).

Keywords : slope steepness, erosion, erodibility, erosion factor

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