PENGARUH GEOMETRI JALAN DAN INTENSITAS HUJAN TERHADAP KEDALAMAN GERUSAN DI BAHU JALAN YANG TIDAK DIPERKERAS

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Author Order	2 of 5
Accreditation	
Abstract	Scour on the unpaved shoulder of the road is an interesting phenomenon that is still quite new in terms of analysis and discussion so that still needs further publication, since most of the roads in Indonesia has many national, provincial, district and village roads have unpaved shoulders. One cause scours in the shoulder of the road is the runoff of rain. The runoff flowing on the unpaved shoulder road, resulting in sediment transport from the upstream to the lower elevation of road shoulder. It is necessary to analyse the influence of the road geometry and intensity of the rain to scour depths of the road shoulder. In this publication conducted multivariable analysis in the influence of road geometry and rain intensity against scour depth in the unpaved shoulder of the road. The analysis starts from primary data collection in the form of a soil sample originating from the road shoulder and road geometry on some streets in Central Java, as well as secondary data in the form of rainfall data at the rain station in Central Java. The primary data in the form of soil samples, were tested in the laboratory to obtain sediment grain diameter D50, specific gravity, and the type of soil samples. Primary data that have been tested in the laboratory, as well as secondary data, then analyzed using multivariate analysis to obtain the equation model for the depth of scour at the shoulder of the road due to the influence of the road geometry and intensity of rainfall. Equation depth of scour at the curb multivariable analysis provides equal results are quite close to the depth of the data collection in the field. The results of the equation also shows that the scour depth of scour at the shoulder of the road were most affected by the slope of the cross street (Sl), and successively followed by the influence of the slope of the elongated path (Sp), the rainfall intensity (I), and the diameter of the granules (D50), where each regression coefficient row is 1223.067; 941.233; 0.8321; and 0.183. Results of multivariable analysis on shoulder scour equation provides multiple regression statistical value R of 0.946, R square of 0.894, adjusted R square of 0.869, and the standard error of 55.344.
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