

Analysis and Evaluation of the Water Catch Basins of the Erosive-Mudflow Rivers of Georgia on the Example of the River Vere

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Abstract : On June 13-14 of 2015, a landslide in village Akhaldaba was formed as a result of the intense rains in the water catch basin of the river Vere. As a result of the landslide movement, freshets and mudflows originated, and unfortunately, there were victims: zoo animals and birds were drawn in the flood and 12 people died due to the flooded motor road. The goal of the study is to give the analysis of the results of the field and scientific research held in 2015-2017 and to generalize them to the water catch basins of the erosive-mudflow rivers of other mountain landscapes of Georgia. By considering the field and scientific works, the main geographic, geological, climatic, hydrological and hydraulic properties of the erosive-mudflow tributaries of the water catch basin of the river Vere were evaluated and the probabilities of mudflow formation by considering relevant risk-factors were identified. The typology of the water catch basins of erosive-mudflow rivers of Georgia was identified on the example of the river Vere based on the field and scientific study, and their genesis, frequency of mudflow formation and volume of the drift material was identified. By using the empirical and theoretical dependencies, the amount of solid admixtures in the mudflow formed in the gorge of the river Jokhona, the right tributary of the river Vere was identified by considering the shape of the stones.

Keywords : water catchment basin, erosion, mudflow, typology

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