

Effect of Snow Cover on Embankment Stability during Rainfall and Snowmelt

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In this study, the effect of snow cover on slope stability was examined to evaluate the risk of snowmelt disasters more accurately. At first, strength characteristics of snow were obtained through laboratory tests. In addition to the laboratory tests, precipitation experiments were conducted on a snow-covered embankment model to observe the moisture response and deformation of the embankment. Furthermore, slope stability analysis using finite element method were conducted on the snow-covered embankment model. As a result, it was confirmed that restriction of the surface layer of embankment could slightly improve the effect of snow cover on the slope stability.