

Maintenance Method for Slope Failure Disaster in Snow Melt Season

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Slope failure which is caused by snowmelt occurs sometimes in Japanese railways during the snow melt season. In this study, we suggested a method of evaluating the amount of snowmelt by calculating it based on the weather data getting from the AMeDAS and also developed a method of evaluating quantitatively a snowmelt disaster risk. For the development of the method, we monitored the change of the ground water levels at several slopes in snowfall areas. As a result of the monitoring, it has been clarified that at time when slopes are suffering snowmelt water for long time, they could be in most unstable condition of the year due to the raising of groundwater. With reference to above situation, we developed a risk evaluation method based on the effective snowmelt index correlated with ground water behavior.