

Development of regional slope failure risk model due to climate change

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Effects of climate change due to global warming are discernible all over the world. Heavy disasters caused by the hazards of climate change extend significant social. The objective of this study is to develop a risk evaluation model which incorporates the General Circulation Model (GCM) outputs and digital geographical information concerning particularly on the slope failure hazards due to high intensity rainfall in future. As previous study, Kawagoe (2010) has developed the slope failure probability model to Japan. However, I needed improvement as information on practicing measure consideration because spatial resolution was rough. This study tried to develop advanced slope failure probability model as spatial resolution and geological features. Development model area is Nagano prefecture. Detail high risk areas are revealed by development advanced. This outcomes can plan the measure practicing more to pile up with sediment disaster caution zones.

Keywords: probability, sediment hazard, regional scale, heavy rainfall