

Verification of the safety of shelters close to mountains

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Over the past few years, there have been many cases of mudslides occurring on days of record-breaking rainfall. This study focuses on mudslides and aims to verify whether the scale of damage caused by mudslides assumed by hazard maps is correct. Mudslides are large amounts of fluid sediment and water flowing at speeds of 20-40 km/h and have the power to destroy houses and fields in an instant. As there is a precedent of a mudslide in Sapporo city, we consider that something on the scale of a fatal event may occur in Sapporo and its suburbs. In hazard mapping, hazard zones for mudslides are delimited at points where the gradient is 2° or more. Hence, an attempt was made to identify the damage caused by the mudslides envisaged by the hazard maps and the safety of the evacuation sites.

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