

Fuchs, S. & M. Bründl (2005): Damage potential and losses resulting from snow avalanches in settlements of the canton of Grisons, Switzerland. *Natural Hazards* 34 (1). p. 53-69.

Abstract

In the field of natural hazards, risk is usually expressed as a function of probability of occurrence and damage potential. A key factor in the development of avalanche risk is a change in damage potential. In this paper, the development of damage potential and losses is analysed for settlements in the canton of Grisons, Switzerland for the period between 1950 and 2000. The spatial development patterns of the residential population and the insured value of buildings on a municipal level are described. These patterns are overlain by an accentuated occurrence of avalanches that caused damage to buildings. Extensive results from areas threatened by avalanches in the municipality of Davos are presented. Although the natural avalanche activity remained constant during the last decades, the total amount of damage decreased due to mitigation measures. The example of the municipality of Davos shows that mitigation measures are able to compensate an increase of tangible assets which leads to a reduced avalanche risk compared to earlier decades.