

## The risks of geomorphological processes - rockfalls, in the area between Negoiu and Moldoveanu Peaks, at over 1800 meters for tourism

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**Abstract:** The present study investigates the geomorphological processes and associated risks of rockfalls in the high-altitude sector between Negoiu and Moldoveanu peaks (above 1800 m) in the Făgăraș Massif, Romania. Using field surveys, remote sensing data, and geomorphological analysis techniques, the research aims to identify the predisposing factors, triggers, and potential impacts of rockfalls in this area. Findings underscore the significance of geological structures, slope characteristics, climatic conditions and human activities in influencing landslide occurrence and magnitude. The study contributes valuable insights for land management strategies, hazard mitigation, and sustainable development efforts in mountainous regions prone to geomorphological hazards.

**Key words:** rockfalls, risks, geomorphological processes, Făgăraș Massif, Romania

### 1.Introduction

Even before the appearance of human species on earth, numerous geophysical events took place, such as earthquakes, floods, and volcanic eruptions. With the appearance of the human species and as a result of the interaction with the natural environment, these events were transformed into natural disasters. The evolution of phenomena that have serious consequences on civilization and its development has led to the analysis in the global issue of scientific research of the notions of hazard, risk, and disaster.

Natural disasters can occur anywhere in the world, but their effects can be influenced by various factors, such as the link between geographical location and its geological and geomorphological characteristics, but also depending on the stage of development of the affected country. Fritz (1961) stated in the early 1960's, that disasters were considered as uncontrollable events in which human society was endangered by all or some of its functions.

Risks and then disasters appear in the interaction between nature and man (White, 1974, UNDRO, 1982). The relief risks remain subjects of concern for people, as a result of the manifestation and direct interaction of certain phenomena related to the relief or its components. The processes which affect and shape the relief, considered normal as a result of its evolution, wear some risks for people and human settlements, being perceived as hazards or disasters depending on the intensity and damage caused.

The particularities of risk perception differ from region to region, country to country, or population to population. Under these conditions, what may be a catastrophe for one country may be just a disaster for another. These terms are not very well defined and clarified in the minds of citizens, leading to confusions which may arise during of such events. They are prone to pay attention mostly to the disasters instead of knowing the hazards as a mean to alleviate the losses

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